Department Of Law

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• By the Students • Of the Students • For the Students

3RD SEMESTER ECONOMICS

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About the Committee

The Academic Committee of the Department of Law at the University of Calcutta is a newly formed body established in the month of September, 2024, comprising dedicated students from all 5 years of the BA LLB program. This diverse committee is designed to foster a collaborative academic environment, drawing on the unique perspectives and experiences of its members to enhance the educational journey of the students.

With a total of 12 members, including two Joint Secretaries, the committee operates under the auspices of the Student Unit (TMCP) of Department of Law, University of Calcutta. Its primary mission is to develop comprehensive study materials and notes that cater to the specific needs of law students, ensuring they have access to essential resources for their academic success.

In addition to creating study materials, the committee is committed to provide valuable support through organized online doubt-clearing sessions and compiling lists of important exam questions. By engaging students from various academic years, the committee aims to create a vibrant community that encourages knowledge sharing and academic excellence across all levels of the BA LLB program. Through these initiatives, we aspire to empower students and enhance their understanding of legal concepts, preparing them for both examinations and future careers in law.

Objectives Of the Committee

The Academic Committee of the Department of Law at the University of Calcutta is dedicated to enriching the academic experience of BA LLB students through several key initiatives. A primary focus is developing comprehensive study materials, including high-quality, well-researched notes covering essential topics in the BA LLB curriculum. This ensures students have valuable resources to support effective learning and exam preparation.

To aid examination success, the committee curates and distributes a list of important questions and topics, helping students focus on critical areas and improve performance. Regular online doubt-clearing sessions further support students by providing a platform to clarify course content, ask questions, and engage in discussions on complex legal concepts.

The committee also emphasizes practical learning through workshops and seminars with legal professionals, offering insights into the legal field and connecting theoretical knowledge to real-world applications. Additionally, fostering a collaborative academic community is a priority, encouraging knowledge sharing and support among students across different years.

Looking ahead, the committee plans to introduce new initiatives such as guest lectures and legal research projects to further enhance the academic experience and prepare students for future careers in law.

Acknowledgement

The Academic Committee of the Department of Law at the University of Calcutta extends its heartfelt gratitude to all those who have supported the establishment and ongoing efforts of this committee. We would like to express our sincere appreciation to the University of Calcutta for providing a conducive environment for academic growth and innovation.

We are especially thankful to the Student Union members, ***Suryajyoti Sarkar*** *(President) and* ***Ananda Biswas*** *(General Secretary) for their unwavering support and guidance, which has been instrumental in facilitating our operations and ensuring that student voices are effectively represented in our initiatives.*

We also appreciate the enthusiasm and commitment shown by our Committee Secretaries - ***Anandita Nandy and Dipshikha Bhandari*** *of 7th Semester and Executive Members – 9th Semester-* ***Ridhikamini Basu Mallick,*** *7th Semester -* ***Ritisha Majumder, Maitreyee Roy****, 5th Semester -* ***Anu Mondal, Manami Pramanick, Supriti Murmu****, 3rd Semester –* ***Diksha, Krishna Thakur, Pragya Shukla, Arkodyuti Pramanick, Debapriya Dutta*** *in working collaboratively to enhance the academic environment for law students. Together, we aim to create a vibrant learning atmosphere that prepares students not only for examinations but also for their future careers in law.*

Disclaimer

The notes mentioned in the pdf are prepared for assistance of students in the Department of Law, Calcutta University. They are aimed at supplementing the efforts of students. Students are sincerely advised to attend classes and study by themselves, using these notes only as a means of reference to enhance their knowledge for examinations. This Committee does not condone missing classes or forsaking of own research for academic purposes.

1. Critically discuss Marshall's definition of economics. Differentiate between welfare and scarcity definitions of Economics.

Alfred Marshall, a pioneer neoclassical economist, reoriented Economics towards the study of mankind and provided economic science with a more comprehensive definition. Marshall, in his famous book 'Principle of Economics' published in 1890, defines economics as follows:

"Political Economy or Economics is a study of mankind in the ordinary business of life. It examines that part of individual & social action which is most closely connected with the attainment & with the use of material requisites of well-being". This definition clearly states that Economics is on the one side a study of wealth and on the other and more important side "a part of the study of man". Marshall's followers like ***Pigou, Cannon and Beveridge*** have also defined Economics in terms of material welfare.

Features of Marshall's Definition

The Marshall's definition of Economics has the following main features:

i. **Wealth is not the be-all and end-all of economic activities**: Economics does not regard wealth as the be-all and the end-all of economic activities. Wealth is sought for promoting human welfare. Hence, wealth is only a means to the fulfilment of an end which is human welfare. Thus, wealth is relegated to a secondary place.

ii. **Study of an ordinary man**: Economics is not concerned with what is called in Economics 'economic man', i.e., a man whose only motive is to acquire wealth for its own sake and who is not influenced by human considerations in the pursuit of wealth. Rather, Economics deals with ordinary men and women who are swayed by love, affection and fellow-feelings and not merely motivated by the desire to get maximum monetary advantage.

iii. **Economics is a social science**: Economics is a social science and not one which demonstrates isolated individual. Economics study people living in society influencing other people and being influence by them.

iv. **Economics does not study all activities of man:** Economics does not study all the activities of man. It is concerned with those actions which can be brought directly or indirectly with the measuring-rod of money. Marshall clearly explains that economic activity is different from other activity. For example,

If a student visits a friend who is ill, it is a social activity,

If a person gives his vote in an election, it is a political activity.

If a person goes to church/temple it is a religious activity.

Marshall says that economic activity is different from the above-mentioned activities. A farmer going to the field or a worker going to the factory to work is an economic activity—they are working to earn money. With that money they will buy things to satisfy their wants. In other words, economics deals with wants, efforts and satisfaction.

In the words of ***Marshall***, "man earns money to get material welfare." Marshall gives importance to welfare and man. As such this definition came to be called the welfare definition.

v. Study of material welfare: Economics is concerned with the ways in which man applies his knowledge and skill to the gifts of nature for the satisfaction of his material welfare. Economics studies only 'material requisites of well-being' or causes of material welfare.

For a long time, the definition of economics given by Alfred Marshall was generally accepted. It enlarges the scope of economics by emphasizing the study of wealth and man rather than wealth alone. However, Marshall's definition was criticized by Lionel Robbins. In his book "Nature and Significance of Economics Science" Robbins gave a critical review of the welfare definitions of economics. These criticisms are discussed below.

MARSHALL'S DEFINITION OF ECONOMICS

I. Classificatory and Impractical:

Robbins rejected Marshall's definition as being classificatory because it makes a distinction between material and non-material welfare and says that Economics is concerned only with material welfare. Robbins does not think it right for the economists to confine their attention to the study of material welfare, because in the actual study of economic principles, both the 'material' and 'immaterial' are taken into account.

II. Narrow down the scope of economics:

According to Robbins, the use of the word "material" in the definition of economics considerably narrows down the scope of economics. There are many things in the world which are not material but they are very useful for promoting human welfare. For example, "the services of doctors, lawyers, teachers, dancers, engineers, professors etc., satisfy our wants and are scarce in supply". If we exclude these services and include only material goods, then the sphere of economics study will be very much restricted.

III. Relation between economics and welfare:

The second objection raised by Robbins on welfare definition is on the establishment of the relation between economics and welfare. According to him, there are many activities which do not promote human welfare, but they are regarded economic activities, e.g., the manufacture and sale of alcohol or opium, etc. Here Robbins says, "Why talk of welfare at all? Why not throw away the mask altogether".

IV. Welfare is a vague concept:

The third criticism raised by Robbins was on the concept of "welfare". In his opinion welfare is a vague concept. It is purely subjective. It varies from man to man, from place to place and from age to age. Moreover, Robbins questioned the use of a concept which cannot be quantitatively measured and on which two persons cannot agree as to what is conductive to welfare and what is not. For example, the manufacturing and sale of guns, tanks and other warheads, the production of opium, liquor etc. are not conducive to welfare but these are all economics activities. Hence, these cannot be excluded from the study of economics.

V. It involves value judgment:

Finally, the word "welfare" in Marshall's definition involves value judgment and brought Economics to the realm of ethics. Whereas, according to Robbins economics is neutral as regards ends. It is not supposed to be its function to pass moral judgments and say what is good and what is bad.

Difference between welfare and scarcity definitions of Economics.

The dichotomy between the welfare and scarcity definitions of economics has been a perennial subject of debate among economists, with each paradigm offering a distinct perspective on the fundamental nature and objectives of economic inquiry.

Welfare Definition

The welfare definition, also known as the "social welfare" or "material welfare" approach, conceptualizes economics as a science concerned with the enhancement of human well-being and the promotion of social welfare. This perspective, espoused by economists such as Alfred Marshall and A.C. Pigou, emphasizes the role of economics in improving the material conditions of life, thereby contributing to the greater happiness and fulfilment of individuals and society as a whole.

Features

- **Focus on human well-being**: The welfare definition prioritizes the advancement of human welfare, encompassing both material and non-material aspects of well-being.
- **Social welfare orientation**: This approach recognizes economics as a social science aimed at promoting the common good and enhancing the overall quality of life.
- **Normative undertones**: The welfare definition often incorporates normative judgments about what constitutes a "good" or "desirable" economic outcome.

Scarcity Definition

The scarcity definition, also known as the "resource allocation" or "choice" approach, defines economics as the science of allocating scarce resources to meet unlimited human wants. This perspective, popularized by economists such as Lionel Robbins and Paul Samuelson, emphasizes the fundamental problem of scarcity and the need for efficient resource allocation to maximize economic welfare.

Features

- **Focus on resource allocation**: The scarcity definition highlights the central problem of allocating limited resources to satisfy infinite human desires.
- **Positive analysis**: This approach focuses on descriptive analysis, seeking to understand how economic systems function and how resources are allocated.

- **Universal applicability**: The scarcity definition is considered more universally applicable, as it can be employed to analyse economic phenomena across different cultures, time periods, and institutional contexts.

Comparison and Contrast

While both definitions acknowledge the importance of economic activity in promoting human well-being, they differ significantly in their emphasis and scope.

- **Primary Focus**

  Welfare Definition - Human well-being and social welfare,

  Scarcity Definition - Resource allocation and scarcity.

- **Normative Orientation**

  Welfare Definition - Incorporates normative judgments,

  Scarcity Definition - Focuses on positive analysis.

- **Scope**

  Welfare Definition - Emphasizes material and non-material aspects of well-being,

  Scarcity Definition - Encompasses all economic activity, regardless of context.

- **Methodology**

  Welfare Definition - Often employs normative and prescriptive approaches,

  Scarcity Definition - Relies on descriptive and analytical methods.

In conclusion, the welfare and scarcity definitions represent two distinct perspectives on the nature and objectives of economics. While the welfare definition emphasizes the promotion of human well-being and social welfare, the scarcity definition focuses on the fundamental problem of resource allocation and the efficient use of scarce resources. Both definitions contribute to a deeper understanding of economic phenomena and the role of economics in addressing the complexities of human society.

2. What is the basic difference between value, price and Cost?

Price is the amount that a buyer must pay to purchase a product or service. Price is the consideration given in return for acquiring a good or service. In a commercial transaction, price refers to the amount charged by the seller from the buyer, in exchange for any product or service,

which includes cost and profit. It is the return for quality, often expressed by the value, at the marketplace. It must be noted that it is referred by different names when used in different contexts, i.e. when the subject matter of the commercial transaction is a good it is called as 'price', but when the subject matter is a 'service', it can be known as:

- **Fees**: For the supply of professional services.
- **Premium**: In the case of insurance.
- **Rent**: For the use of place or machinery.
- **Fare**: In the case of transportation.
- **Salary**: For the work done in an organization.

Cost is the amount a seller incurs to produce and offer the product or service for sale. The cost can be defined as the total amount spent on the inputs like land, labour, capital, machinery, material, etc. with an aim of producing the product or supplying the services. It can be anything which adds to the expense of product or service manufactured or supplied by the firm.

In simple terms, cost implies the financial worth of the sacrifice made, to obtain the goods or services. It is incurred for present or future benefits. The basic elements of cost are: **Material, Labour and Overheads**.

At the time of setting up a price, it is necessary to identify and compute all the costs, as they affect the business profitability to a great extent. Further, costs are divided into **fixed costs and variable costs**:

- **Fixed Cost**: Costs, which remain the same irrespective of the number of units produced, it is called a fixed cost.

  For Example, Rent, depreciation, insurance, web hosting etc.,
- **Variable Cost**: The kind of costs, which varies with the number of units produced is called variable cost.

  For Example, Raw material, labour, shipping cost, etc.

Value is the perceived worth of the product or service to the buyer, which can be influenced by factors such as quality, brand, and customer experience. The value is decided by the marketplace on the basis of the benefits received from the combination of features, or specifications, present in a particular product. The combination of features covers material or functional characteristics, product reliability, user-friendliness, appearance, customer support and technical assistance, etc.

Definition: Price refers to the amount a customer pays for a product or service. Cost is the expense incurred in producing or acquiring a product or service. Value is the benefit or worth a customer perceives in relation to the price they pay.

Setting: Price is set by the seller, cost is determined by the expenses involved, and value is perceived by the customer.

Relation: Price is related to cost, as it should cover the cost and provide a profit. Value is related to both price and cost, as it depends on the customer's perception of the benefits, they receive compared to the price they pay.

Negotiability: Price is usually negotiable, cost is usually not, and value is subjective and varies from customer to customer.

Purpose: Price is meant to generate revenue, cost is meant to control expenses, and value is meant to satisfy customers.

Measurement: Price is measured in monetary terms, cost is also measured in monetary terms, and value is subjective and can be measured in various ways such as customer satisfaction, loyalty, etc.

Time: Price can change over time based on market conditions, cost can also change over time with changes in expenses, and value may change over time as customer preferences change.

Competition: Price is influenced by competition, cost is influenced by the availability and price of inputs, and value is influenced by competition as well as by the customer's perception of benefits offered by competitors.

Importance: All three factors are important for a business as they determine the revenue generated, expenses incurred, and customer satisfaction, respectively. Balancing price, cost, and value is crucial for a business to be successful.

The main difference between price and value is that price is what you pay, while value is what you get. Price is arbitrary and can be driven by human emotions, such as greed or fear. Value is fundamental and is dependent on the need and usefulness of a product or service to the buyer.

Here are some examples of how price and value differ:

- **In a sale**: Price is the amount agreed upon after negotiation between the buyer and seller. Value is the utility or worth of the product for the buyer.
- **In a company:** Price is determined by market supply and demand, valuation methods, and the interests of the buyer and seller. Value is the amount an investor should pay for a company, and is related to the company's ability to generate future income.
- **For a product:** Price is what you pay to buy the product. Value is the combination of features, design, and utility that the product offers to the buyer.
- **For a stock:** Price is determined by many factors, including market tendencies, human emotions, and events. Value can be calculated using the discounted cash flow method.

3. Critically explain Robbin's definition of Economics. Also distinguish between wealth and welfare definition of economics.

It is defined by ***Adam Smith*** as economics is a science which enquires into the nature and causes of wealth of a nation. It is the study of wealth only; the main objective of economics is to examine how people earn wealth and spend it.

"Economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses." – ***Prof. Lionel Robbins.***

Merits of Robbins' Definition:

- **Emphasis on Scarcity**:
  Robbins' definition focuses on the concept of scarcity as the fundamental economic problem. Scarcity implies that resources are limited, and choices must be made to allocate these resources efficiently. This emphasis helps economists understand the allocation of scarce resources and the study of choices made by individuals, firms, and governments.
- **Wide Applicability**:
  Robbins' definition broadened the scope of economics by considering not only the production and consumption of goods and services but also the allocation of scarce resources in various fields. This widened the applicability of economics beyond traditional market activities to areas like healthcare, education, and environmental issues.
- **Positive Science Approach**:

Robbins' definition adopted a positive science approach, focusing on the objective analysis of economic phenomena. By separating economic analysis from value judgments, economists could provide objective analysis and policy recommendations based on empirical evidence rather than personal opinions or ideologies.

- **Unified Approach:**

  Robbins' definition unified the previously divided branches of economics, such as microeconomics and macroeconomics, by emphasizing the fundamental problem of scarcity. This helped establish a common ground for economic analysis and provided a framework for understanding the interdependencies between different economic variables.

Criticism:

- **Static:** ***Prof. Samuelson*** pointed correctly that Robbins' definition is not dynamic in nature, because it has only discussed the problems of present generation, not anything about future generation. Hence the definition suffers with the problem of economic growth.
- **Too vast:** It discussed the scope of economics to all the activities of mankind that are related to the problem of choice. The problem of choice is found in both social and unsocial beings. Thus, it has no social significance in real world.
- **Economic problems also arise from more supply:** Some economists claim that economic problem also arises from the plenty of goods as well. The Great Depression of 1930s in USA was due to abundance of goods, but not due to scarcity of resources.
- **Not fit for socialistic economy**: ***Prof. Maurice*** has criticized Robbins' definition that his definition is not applicable for a socialistic economy, because in this type of economy, the Government takes all the initiatives for supplying all the basic necessities of life among the citizens. For the betterment of whole society, the Government usually launches several beneficiary activities.
- **Not fit for rich country**: The economic problem for a rich and sound economy is different from the underdeveloped or poor economy. Here the resources are not limited. In fact, resources are plenty in this type of economy.
- **Relation with welfare**: ***Robbins*** criticised Marshall's definition on the ground of welfare. However, limited means are used to fulfil unlimited wants. Thus, it means that maximising satisfaction will lead to more welfare. Hence, Robbins' definition is related with welfare also.

Wealth and Welfare Definitions of Economics:

Wealth Definition: The wealth definition of economics focuses on the accumulation and distribution of material resources within a society. It emphasizes the importance of tangible goods and resources in determining the economic well-being of individuals and nations. According to this definition, economics is concerned with the production, allocation, and consumption of wealth.

Key Points: -

i. Economics is primarily concerned with tangible resources and goods.
ii. It focuses on the production, allocation, and consumption of wealth.
iii. Wealth is seen as a measure of economic well-being.

Welfare Definition: The welfare definition of economics takes a broader perspective, considering not only material wealth but also the overall well-being and satisfaction of individuals and society. It recognizes that economic decisions and policies should aim to improve the quality of life for people, rather than solely focusing on the accumulation of wealth.

Key Points:

i. Economics is concerned with the overall well-being and satisfaction of individuals and society.
ii. It acknowledges that material wealth is not the sole determinant of economic well-being.
iii. Economic decisions and policies should aim to improve the quality of life for people.

Comparison:

While the wealth definition of economics focuses on the accumulation and distribution of tangible resources, the welfare definition takes into account the broader aspects of human well-being. By considering factors such as education, healthcare, social justice, and environmental sustainability, the welfare definition recognizes that economic progress should not be measured solely by the amount of wealth generated but also by the extent to which it enhances the overall quality of life. The wealth definition tends to be narrower in scope, primarily focusing on economic indicators such as GDP, income, and material possessions. It is often associated with a

more traditional and narrow understanding of economics. On the other hand, the welfare definition reflects a more holistic approach, recognizing that economic decisions should be made with the goal of improving the overall well-being of individuals and society.

In conclusion, while the wealth definition of economics emphasizes the accumulation and distribution of material resources, the welfare definition takes a broader perspective, considering the overall well-being of individuals and society. Both definitions have their merits, but the welfare definition provides a more comprehensive understanding of the goals and objectives of economics.

4. Which definition of Economics is best according to you? Give reason in support of your answer. Differentiate between Microeconomics and Macroeconomics.

The modern definition, attributed to the 20th century economist, ***Paul Samuelson***, builds upon the definitions of the past and defines the subject as a social science.

According to ***Samuelson,*** "Economics is the study of how people and society choose, with or without the use of money, to employ scarce productive resources which could have alternative uses, to produce various commodities over time and distribute them for consumption now in the future among various persons and groups of society."

It is the growth definition of economics.

Merits of the Growth Definition of Economics:

1. **Dynamic Approach**
   Unlike earlier static definitions (e.g., ***Adam Smith's*** wealth definition or ***Lionel Robbins'*** scarcity definition), the growth definition highlights the changing nature of economic activities over time.
2. **Emphasis on Long-Term Development**
   It considers long-term economic progress, including technological advancements, capital accumulation, and improvements in living standards.

3. **Inclusive of Future Generations**

   This definition accounts for not just present economic conditions but also future growth, making it more relevant for sustainable development.

4. **Broader Perspective**

   It incorporates various economic factors such as employment, income distribution, inflation, and investment, making it more comprehensive.

5. **Practical Relevance**

   Governments and policymakers use growth-oriented economic analysis to develop strategies for increasing GDP, reducing poverty, and improving economic welfare.

6. **Focus on Production and Distribution**

   Samuelson's definition considers both the production and distribution of resources over time, ensuring a balanced approach to economic analysis.

Difference between Microeconomics and Macroeconomics.

"Economics is the science which studies human behaviour as a relationship between given ends and scarce means which have alternative uses." – ***Lionel Robbins***

Economic is a study about how individuals, businesses and governments make choices on allocating resources to satisfy their needs. These groups determine how the resources are organised and coordinated to achieve maximum output. They are mostly concerned with the production, distribution and consumption of goods and services.

Economics is divided into two important sections, which are: **Macroeconomics & Microeconomics.** Macroeconomics deals with the behaviour of the aggregate economy and Microeconomics focuses on individual consumers and businesses.

MICROECONOMICS

Microeconomics is the study of decisions made by people and businesses regarding the allocation of resources and prices of goods and services. The government decides the regulation for taxes. Microeconomics focuses on the supply that determines the price level of the economy. It uses the bottom-up strategy to analyse the economy. In other words, microeconomics tries to understand human's choices and allocation of resources. It does not decide what are the changes

taking place in the market, instead, it explains why there are changes happening in the market. The key role of microeconomics is to examine how a company could maximise its production and capacity, so that it could lower the prices and compete in its industry. A lot of microeconomics information can be obtained from the financial statements.

The key factors of microeconomics are as follows:

- Demand, supply, and equilibrium
- Production theory
- Costs of production
- Labour economics

Examples: Individual demand, and price of a product.

MACROECONOMICS

Macroeconomics is a branch of economics that depicts a substantial picture. It scrutinises itself with the economy at a massive scale, and several issues of an economy are considered. The issues confronted by an economy and the headway that it makes are measured and apprehended as a part and parcel of macroeconomics. Macroeconomics studies the association between various countries regarding how the policies of one nation have an upshot on the other. It circumscribes within its scope, analysing the success and failure of the government strategies. In macroeconomics, we normally survey the association of the nation's total manufacture and the degree of employment with certain features like cost prices, wage rates, rates of interest, profits, etc., by concentrating on a single imaginary good and what happens to it.

The important concepts covered under macroeconomics are as follows:

- Capitalist nation
- Investment expenditure
- Revenue

Examples: Aggregate demand, and national income.

Difference between Microeconomics and Macroeconomics.

- **Meaning**

Microeconomics is the branch of Economics that is related to the study of individual, household and firm's behaviour in decision making and allocation of the resources. It comprises markets of goods and services and deals with economic issues.

Macroeconomics is the branch of Economics that deals with the study of the behaviour and performance of the economy in total. The most important factors studied in macroeconomics involve gross domestic product (GDP), unemployment, inflation and growth rate etc.

- **Area of study**

Microeconomics studies the particular market segment of the economy.

Macroeconomics studies the whole economy, that covers several market segments.

- **Deals with**

Microeconomics deals with various issues like demand, supply, factor pricing, product pricing, economic welfare, production, consumption, and more.

Macroeconomics deals with various issues like national income, distribution, employment, general price level, money, and more.

- **Business Application**

Microeconomics is applied to internal issues.

Macroeconomics is applied to environmental and external issues.

- **Scope**

Microeconomics covers several issues like demand, supply, factor pricing, product pricing, economic welfare, production, consumption, and more.

Macroeconomics covers several issues like distribution, national income, employment, money, general price level, and more.

- **Significance**

Microeconomics is useful in regulating the prices of a product alongside the prices of factors of production (labour, land, entrepreneur, capital, and more) within the economy.

Macroeconomics perpetuates firmness in the broad price level, and solves the major issues of the economy like deflation, inflation, rising prices (reflation), unemployment, and poverty as a whole.

- **Limitations**

Microeconomics is based on impractical presuppositions, i.e., in microeconomics, it is presumed that there is full employment in the community, which is not at all feasible.

Macroeconomics has been scrutinised that the misconception of composition' incorporates, which sometimes fails to prove accurate because it is feasible that what is true for aggregate (comprehensive) may not be true for individuals as well.

5. State the law of Demand. What do you mean by price elasticity of demand? Explain the different kinds of price elasticity of demand with diagrams.

Law of Demand

The law of demand states that the quantity demanded of a good show an inverse relationship with the **price** of a good when other factors are held constant (*ceteris paribus*). It means that as the price increases, demand decreases.

The law of demand is a fundamental principle in macroeconomics. It is used together with the **law of supply** to determine the efficient allocation of resources in an economy and find the optimal price and quantity of goods.

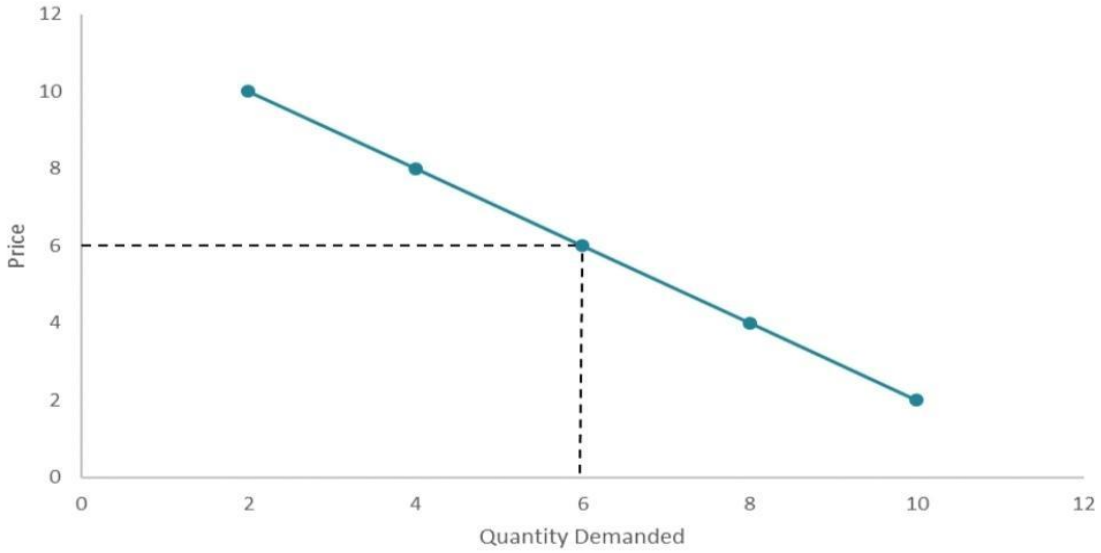


Figure 1. Demand Curve Approximation

Graphical Representation of the Law of Demand

The law of demand is usually represented as a graph. The graphical representation of the law of demand is a curve that establishes the relationship between the quantity demanded and the price of a good.

The shape of the demand curve can vary among different types of goods. Most frequently, the demand curve shows a concave shape. However, in many economics' textbooks, we can also see the demand curve as a straight line.

The demand curve is drawn against the quantity demanded on the x-axis and the price on the y-axis. The definition of the law of demand indicates that the demand curve is downward sloping.

It is important to distinguish the difference between the demand and the quantity demanded. The quantity demanded is the number of goods that the consumers are willing to buy at a given price point. On the other hand, the demand represents all the available relationships between the good's prices and the quantity demanded.

Exceptions to the Law of Demand

Unlike the laws of mathematics or physics, the laws of economics are not universal. For example, the law of demand comes with a few exceptions. Some goods do not show an inverse relationship between the price and the quantity. Therefore, the demand curve for these goods is upward-sloping.

- **Giffen goods**

These are inferior goods that lack close substitutes that represent a large portion of the consumer's income. Scottish economist ***Sir Robert Giffen*** proposed the existence of such goods in the 19th century. Giffen goods violate the law of demand because the prices of these goods increase with the increase in the quantity demanded. However, Giffen goods remain mostly a theoretical concept as there is limited empirical evidence of their existence in the real world.

- **Veblen goods**

Certain types of luxury goods violate the law of demand. Veblen goods are named after American economist ***Thorstein Veblen***. Generally, they are luxury goods that indicate the economic and social status of the owner. Therefore, consumers are willing to consume Veblen goods even more when the price increases. Some examples of Veblen goods include luxury cars, expensive wines, and designer clothes.

Price Elasticity of Demand

Price elasticity of demand is a fundamental concept in microeconomics that measures the responsiveness of the quantity demanded of a good or service to changes in its price. It's a crucial tool for businesses, policymakers, and economists to understand how consumers react to price fluctuations.

- ### Definition

Price elasticity of demand (PED) is defined as the percentage change in the quantity demanded of a good or service in response to a 1% change in its price. It's calculated using the following formula:

PED = (Percentage change in quantity demanded) / (Percentage change in price)

- ### Interpretation

The PED value can be interpreted in the following ways:

i. **Elastic demand**: PED > 1. This means that a small price change leads to a large change in quantity demanded. Consumers are highly responsive to price changes.
ii. **Inelastic demand**: PED < 1. This means that a large price change leads to a small change in quantity demanded. Consumers are less responsive to price changes.
iii. **Unitary elasticity**: PED = 1. This means that a price change leads to a proportionate change in quantity demanded.

- ## Determinants

Several factors influence the price elasticity of demand:

i. **Availability of substitutes**: If close substitutes are available, consumers are more likely to switch to alternative products, making demand more elastic.
ii. **Income level**: Consumers with higher incomes may be less responsive to price changes, making demand more inelastic.
iii. **Necessity vs. luxury**: Essential goods tend to have inelastic demand, while luxury goods have more elastic demand.
iv. **Time period**: Demand tends to be more elastic in the long run, as consumers have time to adjust to price changes.

- ## Importance

Understanding price elasticity of demand is crucial for:

i. **Businesses**: To set optimal prices, forecast demand, and maximize revenue.
ii. **Policymakers**: To design effective tax policies, regulate industries, and promote consumer welfare.
iii. **Economists**: To analyse market trends, predict consumer behaviour, and model economic systems.

- ## Real-World Examples

i. **Tobacco products**: Demand for tobacco products tends to be inelastic, as consumers are addicted and less responsive to price changes.
ii. **Smartphones**: Demand for smartphones is relatively elastic, as consumers can switch to alternative brands or models in response to price changes.

iii. **Electricity**: Demand for electricity is often inelastic, as it's an essential good and consumers are less responsive to price changes.

In conclusion, price elasticity of demand is a vital concept in economics that helps us understand how consumers respond to price changes. By analysing the PED, businesses, policymakers, and economists can make informed decisions to optimize prices, promote consumer welfare, and design effective economic policies.

The different kinds of price elasticity of demand with diagrams

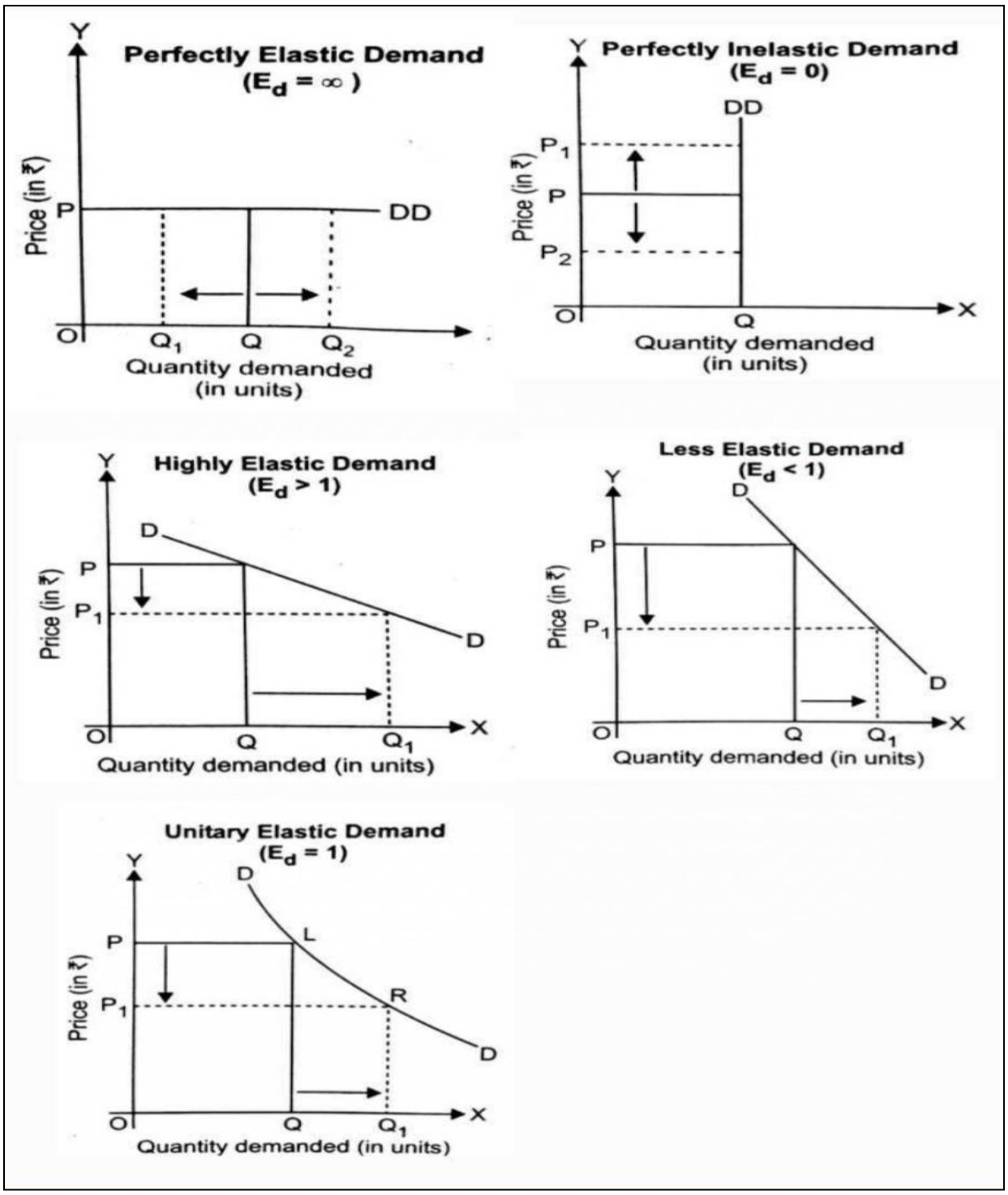
Meaning of price elasticity of demand: Price elasticity of demand is defined as the ratio of the percentage change in quantity demanded of a commodity to a percentage change in price.

Thus Ep = Percentage change in quantity demanded/Percentage change in price.

Following are the types of price elasticity of demand with diagrams:

1. **Highly Elastic (PED > 1):** If the percentage of change in demand is more than the percentage of change in price, then the demand is perfectly elastic. For instance, if a 10% increase in price causes a 20% drop in demand, then the coefficient of PED is 3, which means that the demand is perfectly elastic.
2. **Elastic or Unit Elastic (PED = 1):** When the percentage of change in demand is the same as the percentage of change in price, then the demand is unit elastic. For example, let us say that the price of a candy drops from Rs.10 to Rs.5 and the demand increases from 10 candies to 15 candies. Here, the percentage of change in demand is equal to the percentage of change in price (50% divided by 50%, which is 1).
3. **Inelastic (PED < 1):** If the percentage of change in demand is less than the percentage of change in price, then the demand is inelastic. For instance, let us say that the price of a chocolate increases from Rs.10 to Rs.20 and the associated demand decreases from ten chocolates to five chocolates. So now the PED will be 50% divided by 100%, which is 0.5. Hence, the demand here is inelastic.
4. **Perfectly Inelastic (PED = 0):** When the price elasticity of demand or PED is zero, then the demand is perfectly inelastic. That is, there is no change in the quantity demanded in response to the change in price. The demand curve remains vertical. Demand is completely unresponsive to the change in price.

5. **Perfectly elastic (PED = ∞):** When the price elasticity of demand or PED is infinity, then the demand is perfectly elastic. That is, there is no change in the price in response to the change in quantity demanded. The demand curve remains horizontal.



6. What is monopoly? How does the monopolist achieve equilibrium in the short run? What are its limitations?

Monopoly is a market structure in which a single firm supplies the entire market with a particular good or service. This means that the monopolist has complete control over the market and can influence the price and output of the good or service.

Characteristics of Monopoly

- **Single Seller**: There is only one firm supplying the market with a particular good or service.
- **No Close Substitutes**: There are no close substitutes available for the good or services provided by the monopolist.
- **Barriers to Entry**: There are significant barriers to entry, making it difficult or impossible for new firms to enter the market.
- **Price Maker**: The monopolist has the power to set the price of the good or service.

How Monopolist Achieves Equilibrium in Short Run

In the short run, the monopolist achieves equilibrium by equating marginal revenue (MR) with marginal cost (MC). The monopolist will produce the quantity of output where MR = MC, and charge the price that corresponds to this quantity on the demand curve.

Steps to Achieve Equilibrium:

i. **Determine Demand Curve**: The monopolist determines the demand curve for the good or service.

ii. **Calculate Marginal Revenue**: The monopolist calculates the marginal revenue (MR) curve, which shows the additional revenue generated by selling one more unit of the good or service.

iii. **Calculate Marginal Cost**: The monopolist calculates the marginal cost (MC) curve, which shows the additional cost of producing one more unit of the good or service.

iv. **Equate MR and MC**: The monopolist equates MR and MC to determine the profit-maximizing quantity of output.

v. **Determine Price**: The monopolist determines the price that corresponds to the profit-maximizing quantity of output on the demand curve.

Limitations of Monopoly

- **Inefficient Allocation of Resources**: Monopoly can lead to an inefficient allocation of resources, as the monopolist may not produce the socially optimal quantity of output.
- **Higher Prices**: Monopoly can lead to higher prices, as the monopolist has the power to set prices.
- **Reduced Consumer Welfare**: Monopoly can lead to reduced consumer welfare, as consumers may not have access to alternative products or services.
- **Innovation Stifling**: Monopoly can stifle innovation, as the monopolist may not have an incentive to innovate or improve products or services.
- **Anti-Competitive Practices**: Monopoly can lead to anti-competitive practices, such as predatory pricing or exclusionary contracts.

In conclusion, monopoly is a market structure in which a single firm supplies the entire market with a particular good or service. The monopolist achieves equilibrium in the short run by equating marginal revenue with marginal cost. However, monopoly has several limitations, including inefficient allocation of resources, higher prices, reduced consumer welfare, innovation stifling, and anti-competitive practices.

7. Define Socialism. What are the merits and demerits of a socialist economy? Discuss how the basic problems of a Socialist Economy differ from those of a capitalist economy.

Meaning and Definition

Socialism as an alternative to capitalism, has the widest appeal.

Definition: The word socialism has been defined as "such a type of socialist economy under which the economic system is not only regulated by the government to ensure welfare, equity of opportunity and social justice to the people."

According to ***Mr. Webb:*** "A socialised industry is one in which the national instruments of production are owned by public authority or voluntary association and operated not with a view to profiting by sale to other people but for the direct service of those whom the authority or association represents."

This definition does not correspond to the present notion of socialism, because it does not imply any idea of planning.

Prof. Dickinson has defined socialism as such: "Socialism is an economic organisation of society in which the material means of production are owned by the whole community and operated by representatives of the people, who are responsible to the community according to a general plan, all the members of community being entitled to the benefits from results of such socialised, planned production, on the basis of equal rights."

There is no complete agreement as to what exactly socialism is. But the definition given by ***Prof. Dickinson*** seems to be better. Economists have compared socialism as a hat which has lost its shape because everybody wears it. It has been aptly remarked that "socialism has been called many things and many things have been called socialism".

Merits of Socialism

A socialist economy has many alternative features. These have made socialism more and more popular. The main merits of the socialist economy are as under:

- **Social Justice is Assured:**

  The chief merit of socialism is that it assures social justice. Under socialism the inequalities of income are reduced to the minimum and the national income is more equitably and evenly distributed. The socialist principle provides for a fair share for all. No one is permitted to have unearned income. Exploitation of man by man to put an end to. Every individual is assured of equal opportunities, irrespective of caste, creed and religion. Every child whether he is born in a poor family or in a rich family is given an equal opportunity to develop his latent faculties through proper education and training.
- **Rapid Economic Development:**

A socialist economy is likely to grow much faster than a capitalist economy. The experience of the U.S.S.R. and other socialist countries amply proved this. The main factors making for the fast growth rate is the full use of resources, scientific planning and quick decisions.

- **Production According to Basic Needs:**

  In this economy the production is directed to satisfy the basic needs of the people first. As far as possible, the production of food, clothing or building materials is guided by the basic needs of the people and is not according to the purchasing power of the rich section of the society. Therefore, the phenomenon of the poor going hungry while the rich feast cannot be seen in the socialist economy.

- **Balanced Economic Development:**

  Economic planning is meant to carry out balanced development of the economy. All the regions of the country are taken care of. Development of the backward areas is also given a priority. Similarly, agriculture and industry, heavy and small industries develop side by side. As a result, there is no lop-sided development of the economy.

- **It has Economic Stability:**

  Another important merit is the economic stability which a socialist economy has. A capitalist economy is often suffering from economic fluctuations resulting in a lot of unemployment and wastage of resources. There is a good deal of misery among the working classes in periods of depression in a socialist economy. A socialist economy is able to control economic instability due to the planned nature of the economy. Pure changes are taken care of under a perspective plan. Private investment is given a minor role. Therefore, there are no economic fluctuations.

- **It has More Flexibility:**

  A socialist economy is much more flexible than a capitalist economy because of the control on market forces. The socialist economy can be geared to war times as early as it is operated during peace-time. Rather the state having ownership of means of production can meet the needed changes much better than the slow-moving market mechanism of the capitalist economy.

- **Conservation of Natural Resources:**

  A socialist economy has a great advantage of planning for the future. Wasteful use of the country's natural resources is a common problem in all the capitalistic economies. Private

enterprise does not care for the future. A planning authority can take the interest of future generations into account by preparing plans for conservation of the country's non-renewable resources like coal, petroleum, forests and soil.

- **Equitable Distribution of Wealth and Income:**

  A socialist economy is operated with the aim of providing equal opportunity for all citizens in earning incomes. Generally, private property is restricted to some basic needs. There is no amassing of wealth by a few. Wealth is also equitably distributed because private enterprise is given a limited role.

- **No Exploitation and Class Struggle:**

  A socialist economy can also get rid of the basic maladies of the capitalist economy. There is no question of exploitation as much as the state determines the distribution pattern of a country's income. Further the whole society is the common aim of all planning. No sections are discriminated against. There is not special favour in any class. Therefore, there is no scope for anything like the class struggle which is a characteristic of the capitalist economy.

- **Social Welfare Activities:**

  A Socialist Economy is oriented to social needs. The government provides for full security. There is automatic care for the children of those who meet accidents while performing their duties. There is provision for old age pension for all. The slogan is "to each according to his needs, from each according to his capacity." Therefore, the employees in state enterprises can work without much worry. Their productivity is higher. There are no labour disputes and no wastage of resources resulting from as is the case in a capitalist economy.

- **There is no Wastage of Competitive Advertisement:**

  A capitalist economy is not always able to achieve productive efficiency through competition. There is a good deal of wastage through competitive advertisement of different varieties. The consumer has to pay the price of the useless advertising. ***Prof. Chamberlain*** has tried "to show that capitalism leads to excess capacity when there is differentiation of the products." In a socialist economy, there is no such wastage. In the first place only those goods and services are produced which are preferred by the consumers. Secondly, if at all there is any advertising, it is only meant for information about different products to consumers.

- **Foresightedness:**

A socialist economy can prepare for the future much better than a capitalist economy. Future is always uncertain. The planners take full note of the uncertainties while formulating the plan. Flexibility in planning is meant to provide for immediate changes in the plan as conditions change. Planners can anticipate some of the future changes and prepare for them so that the nation is not suddenly caught unaware.

Demerits of Socialism

The merits of socialism given above should not lead us to the conclusion that socialist economy is all virtues. There are certain demerits of this system which are as follows:

- **No Suitable Basis of Cost Calculation:**

  Von Hayek and Bobbins have pointed out that there is not proper basis of cost calculation in a socialist economy. They say that the means of production being owned by the government, there is no market price for the factors of production. In the absence of a market mechanism there is no standard way of calculating costs of production for different goods and services.

- **Choice of Working Incentives:**

  The most difficult problem in this system is the choice and working of incentives in the absence of profit motive. The Russian Government has been using the policy of "Carrot and the Stick". Some national honours are given to those showing outstanding results. Those shirking work or proving irresponsible are punished. There is decentralisation of authority along-with responsibility. This ensures freedom at the lower level and scope for initiatives. However, there is no comparable system of incentives and dis-incentives to the profit motive in a capitalist economy.

- **It Becomes Lack of Incentives:**

  In this system, it has also been seen that incentive of hard work and inclination to self-improvement will dis-appear together when personal gain or self-interest is eliminated. People will not give their best. Incentive, ability, enterprising spirit and the go-ahead attitude will languish and creative work will become impossible. It is said that "a government could print a good edition of Shakespeare's work but it could not get them written."

- **There is Loss of Economic Freedom:**

  A very important charge against socialism is that, when freedom to enterprise dis-appears, even the free choice of occupation will go. Workers will be assigned certain jobs and they

cannot change them without the consent of the planning authority. Every worker will have to do what he will be asked to do.

- **Lack of Data, Experts and Administrators for Planning:**

  Operating a socialist economy as a planned economy requires huge data, a good number of experts and an equal number of administrators at different levels for administering the plan. No doubt machines can help to process the data and experts can advise but there has to be decision-making at different levels of government. It is difficult to find enough data with the result that decisions are delayed, mis-carried or wrongly implemented. Ultimately, the common people have to pay the price for these mistakes.

- **Loss of Economic Freedom and Consumer Sovereignty:**

  Under socialism all economic activity is directed by the central planning authority. There is no significant role given to private investment and initiative. Consumers are compelled to accept whatever public enterprises produce for them. Generally, there is a limited variety of goods and restricted available choices. Prices are fixed by the government and consumers just cannot do anything about them. Consumer's preferences are just guessed by the planners who have no compulsion to study the people's preferences deeper.

- **Imperfections in Planning Lead to Dis-satisfaction on a Big Scale:**

  Imperfection may creep in the formulations of the plan, its assumptions, statistics or analysis. Further, imperfection may enter at the stage of implementation of the plan. Further, there may be a lack of adjustment between prices and wages. As a result of these imperfections there is lot of wastage of resources, slowing down of work, shortfalls in targets and the dis-satisfaction resulting there-from. Mistakes made by individuals harm them only. National mistakes are costly for the common man. In fact, this has been the cause of dis-integration of the U.S.S.R., when the other economies of Europe were booming the U.S.S.R. could not provide the minimum comforts of life.

- **Too Much Power is Concentrated in the State:**

  Under socialism the state is not merely a political authority but it also exercises unlimited authority in the economic sphere. In this, all power is concentrated in the state. It means the state is everything and individual nothing. He is reduced to a cypher. After all the human institutions are for man and not man for these institutions.

Whatever the difficulties of running a socialist economy, the appeal for socialism was great especially, in less developed countries. For over populated countries having national problems, socialism seemed to be the only hope of the masses. Free market economy in its pure form is a thing of the past. Mixed Capitalist Economy is already the order in all the western countries. In the Less Developed Asian Countries, the Government has not only to regulate economic activity but positively direct it by active participation for the fast development of the country. As for the difficulties, they exist and can be eliminated through cooperation between the administration and the people. As the country develops economic planning gets a stronghold and difficulties wear away.

Difference between the basic problems of a Socialist Economy from those of a capitalist economy:

In a socialist economy, the basic problems differ significantly from those in a capitalist economy. Here's a detailed discussion:

Basic Problems of a Capitalist Economy

In a capitalist economy, the basic problems are:

- **What to produce**: Determined by market forces and consumer demand.
- **How to produce**: Firms choose the most cost-effective method to maximize profits.
- **For whom to produce**: Goods and services are produced for those who can afford them.
- **How to distribute income**: Income is distributed based on market forces, with individuals earning wages, rents, and profits.

Basic Problems of a Socialist Economy

In a socialist economy, the basic problems are:

- **What to produce**: Determined by social needs and priorities, often through planning and allocation.
- **How to produce:** Production methods are chosen based on social and environmental considerations, rather than just profit maximization.

- **For whom to produce:** Goods and services are produced to meet the needs of all members of society, regardless of their ability to pay.
- **How to distribute income:** Income is distributed based on social principles, such as equality and fairness, often through a system of social welfare and redistribution.

8. What is Mixed Economy? Discuss the characteristic features of Mixed Economy. Distinguish between Capitalist and Socialist Economy.

A mixed economy is an economic system that integrates elements of both capitalism and socialism, blending the advantages of free markets with government regulation and intervention. In a mixed economy, private ownership of resources and enterprises coexists with public ownership and state control. This system acknowledges the efficiency and innovation that arise from private sector competition while simultaneously addressing the need for equity, social welfare, and resource redistribution through government policies.

In a mixed economy:

- **Private Sector operates under a market-driven framework:** Individuals and businesses have the freedom to produce goods, offer services, and pursue profit. Prices, investments, and production are largely determined by supply and demand within the marketplace. However, this freedom is subject to legal and regulatory frameworks imposed by the state to prevent monopolies, unethical practices, or environmental damage.
- **Public Sector serves as a stabilizing force for social welfare:** The government owns and manages key industries and sectors critical to national interest, such as defence, railways, public healthcare, education, and utilities. The aim is to prevent exploitation, ensure equal access to resources, and reduce economic disparities.

A mixed economy thus strives to combine the best features of both systems:

- From capitalism, it takes the principles of innovation, entrepreneurship, and individual freedom.
- From socialism, it incorporates state planning, welfare measures, and equitable distribution of resources to ensure social justice.

This approach balances economic efficiency (promoting growth, investment, and productivity) with equity (ensuring social welfare and reducing poverty). The state plays a dual role—acting as a regulator to check market failures and as a provider to ensure essential services are accessible to all.

Characteristic Features of a Mixed Economy

1. Coexistence of Public and Private Sectors:

In a mixed economy, industries and enterprises are divided between the public sector (government-owned) and the private sector (owned by individuals and businesses). For example, critical sectors like defence, railways, and energy may be controlled by the government, while sectors like consumer goods and services are often private.

2. Government Regulation:

The government intervenes to regulate private sector activities to prevent monopolies, protect consumers, and ensure fair competition. Regulatory measures include taxation, licensing, and environmental laws.

3. Social Welfare:

A mixed economy focuses on promoting public welfare. The government provides essential services like education, healthcare, and infrastructure to reduce income disparities and improve living standards.

4. Profit Motive with Social Responsibility:

While private enterprises operate for profit, they are encouraged or mandated to fulfil social responsibilities such as providing fair wages and protecting the environment.

5. Economic Planning:

Governments in mixed economies formulate economic plans to guide and regulate development. This ensures resources are allocated efficiently to achieve national goals like poverty reduction and employment generation.

6. Private Property Rights:

Individuals have the right to own, use, and transfer private property, but such rights are subject to regulations for public interest.

7. Freedom of Choice:

Consumers, workers, and businesses enjoy economic freedom to make decisions, such as choosing jobs, purchasing goods, or setting up businesses, but this freedom is not absolute and must align with social welfare.

8. Price Mechanism and Government Intervention:

The pricing of goods and services is largely determined by market forces. However, the government intervenes to control prices of essential commodities and ensure affordability for all sections of society.

A mixed economy represents a pragmatic approach to economic organization. By combining the profit-driven efficiency of capitalism with the social objectives of socialism, it aims to achieve a balance between growth and equity. This system is adaptable, ensuring economic progress while addressing market imperfections and social disparities through government intervention. Countries like India, France, and Canada exemplify the mixed economy model, where both public and private sectors contribute to national development and welfare.

Thus, a mixed economy serves as a middle path, accommodating market freedom alongside state responsibility to create a just, equitable, and sustainable economic order.

Distinction Between Capitalist and Socialist Economy

A capitalist economy and a socialist economy represent two distinct systems of economic organization, differing fundamentally in their principles, ownership structure, and approach to economic growth and social welfare. Below is an elaborate comparison between the two:

- **Definition**

Capitalist Economy: A capitalist economy, also known as a free-market economy, is one where the means of production (land, labour, capital, and enterprise) are privately owned and controlled. The primary goal is to maximize profit, and economic activities are determined by the market forces of demand and supply with minimal government intervention.

Socialist Economy: A socialist economy is an economic system in which the means of production are owned and controlled by the state or the community as a whole. The primary focus is on social welfare and equitable distribution of resources, with government planning playing a central role in determining production and distribution.

- **Ownership of Means of Production**

Capitalist Economy: The ownership of resources such as factories, businesses, and land lies in the hands of private individuals and corporations. Private property rights are legally protected, allowing individuals to own, control, and transfer property freely.

Socialist Economy: The means of production are owned by the state or the community collectively. Private property is either non-existent or highly restricted, particularly for resources critical to the economy. For example, industries, land, and natural resources are under public control.

- **Economic Motive**

Capitalist Economy: The primary motive of economic activity is profiting maximization. Businesses operate to generate profits, which serve as incentives for innovation, efficiency, and competition.

Socialist Economy: The main motive is social welfare and ensuring equality in the distribution of wealth. Production decisions are made with the intention of meeting the needs of society rather than pursuing profits.

- **Role of Government**

Capitalist Economy: The government plays a minimal role, often limited to ensuring law and order, protecting property rights, and maintaining competition. The market largely determines economic activities, and government intervention is avoided to let market forces operate freely.

Socialist Economy: The government plays a dominant role in economic decision-making. It controls production, pricing, distribution of goods, and allocation of resources through centralized economic planning.

- **Economic Equality**

Capitalist Economy: Economic inequality is inherent in capitalism. Wealth and resources are concentrated in the hands of those who own capital, leading to disparities in income and living standards. However, inequality serves as an incentive for individuals to work harder and innovate.

Socialist Economy: The socialist economy aims for economic equality by redistributing resources and wealth. Income disparities are minimized through state policies like progressive taxation, free education, healthcare, and other welfare programs.

- **Price Mechanism**

Capitalist Economy: Prices of goods and services are determined by the market forces of demand and supply. The price mechanism ensures resource allocation, production decisions, and market equilibrium.

Socialist Economy: The government fixes prices for goods and services, based on social priorities and resource availability. The price mechanism is replaced by centralized planning to achieve equity and stability.

- **Competition**

Capitalist Economy: A capitalist economy thrives on competition among businesses. Competition encourages efficiency, innovation, lower costs, and higher-quality goods and services to attract customers.

Socialist Economy: In a socialist economy, competition is minimal or absent because the state controls production. Instead of competition, cooperation and collective efforts are emphasized to meet the needs of society.

- **Decision-Making**

Capitalist Economy: Decision-making in a capitalist economy is decentralized. Individuals and businesses independently decide what to produce, how to produce, and for whom to produce based on market signals like prices and demand.

Socialist Economy: Decision-making is centralized. The state or a central authority makes all major economic decisions, including production targets, resource allocation, and distribution of goods.

- **Role of Market Forces**

Capitalist Economy: Market forces, particularly demand and supply, determine the allocation of resources and prices. This system is known for its efficiency but can sometimes result in market failures like monopolies or unemployment.

Socialist Economy: Market forces play little to no role. Economic activities are determined by government plans, and resources are allocated based on social needs rather than consumer preferences or profitability.

- **Innovation and Efficiency**

Capitalist Economy: The profit motive and competition encourage innovation, technological progress, and efficiency. Entrepreneurs continuously seek ways to produce goods at lower costs and introduce new products to capture market share.

Socialist Economy: Innovation and efficiency are often lower in socialist economies because the absence of competition and profit motive reduces incentives for risk-taking and technological advancement.

- **Consumer Choice**

Capitalist Economy: Consumers enjoy a wide range of choices. They can purchase goods and services based on personal preferences, as businesses compete to meet diverse consumer demands.

Socialist Economy: Consumer choices are limited because production decisions are made by the government based on societal priorities rather than individual preferences.

- **Economic Planning**

Capitalist Economy: There is no formal economic planning in a capitalist economy. Market forces guide production, distribution, and investment decisions.

Socialist Economy: Economic planning is a fundamental feature of socialism. Governments create comprehensive five-year or long-term plans to allocate resources and set production targets.

- **Examples**

Capitalist Economy: Countries like the United States, Japan, Canada, and Australia represent capitalist economies where private ownership and market forces dominate.

Socialist Economy: Countries like the former Soviet Union, Cuba, and North Korea are examples of socialist economies where the state owns and controls economic resources.

The capitalist economy prioritizes individual freedom, profit maximization, and market-driven efficiency but often results in income inequality. On the other hand, the socialist economy emphasizes social welfare, equality, and state control, but it may lack the innovation and efficiency driven by competition. While both systems have their strengths and weaknesses, modern economies often adopt elements of both, giving rise to mixed economies, which aim to combine the best of both systems.

9. State and explain the Law of Variable Proportions. Mention the differences between Law of variable Proportions and Law of Returns to Scale.

The Laws of Production consist of two main principles: the Law of Variable Proportion, also known as the Law of Diminishing Marginal Returns, which explains how adding more of a variable input can lead to diminishing additional output; and the Law of Return to Scale, which examines how increasing all inputs in equal proportions affects overall output, with three possible outcomes – increasing returns, constant returns, or decreasing returns to scale. Together, these laws provide essential insights into the efficiency and behaviour of production processes in different economic contexts.

Law of Variable Proportion

It states that when the volume of one factor of production is raised while keeping all other factors constant, it results in the decline of the marginal product of that factor. The law of variable

proportion is also understood as the Law of Proportionality. When the variable factor becomes more, it can result in a negative value of the marginal product.

The law of variable proportion can be concluded as "When the variable factor is raised while keeping all other factors constant, the total product will increase originally at a higher rate, it'll be increasing at a lower rate and ultimately there will be a decline in the rate of the product."

Assumptions of the Law of Variable Proportion

The law of variable proportion holds good under certain circumstances, which will be explained in the lines below.

- **A constant state of Technology**: It's assumed that the state of technology will be constant and with advancements in the technology, the production will upgrade.
- **Variable Factor Proportions**: Another assumption of the Law of Variable Proportion is that factors of production are variable. The law isn't valid, if factors of production are fixed.
- **Homogeneous factor units**: This assumes that all the units manufactured are identical in quality, volume and price. In other words, the units or goods are homogeneous in nature.
- **Short Run**: This assumes that this law is appropriate for those systems that are operating for a short term, where it isn't possible to alter all factor

Stages of the law of Variable Proportion

There are three stages of the law of variable proportion which are detailed below.

First Stage – Increasing Return to a Factor

In the initial stage, every additional variable factor adds further and further to the total output. It means TP increases at a vast rate and MP of each variable factor rises. Better utilization of fixed factors and increases in the effectiveness of a variable factor due to specialization are the significant factors accountable for higher returns.

The increasing returns to a factor stage have been shown in the given illustration between O to L. It implies. TP increases at an increasing rate and MP rises till it reaches its maximum point' L'. which marks the end of the first phase.

Second Stage – Diminishing Return to a Factor

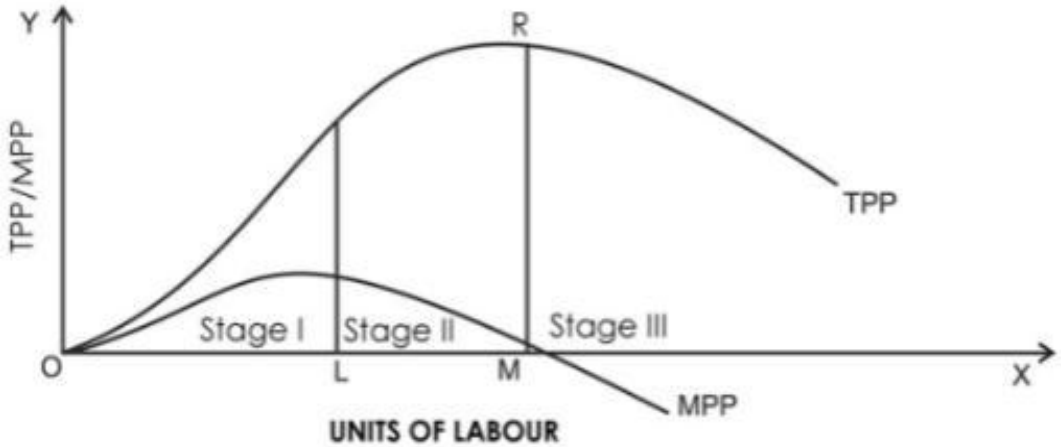
In the second phase, incorporating each additional variable input leads to a progressively smaller increment in output. This implies that the Total Product (TP) starts to increase at a slower pace, and the Marginal Product (MP) of the variable input declines as the input quantity grows. The primary reason for these diminishing returns phenomenon is the disruption of the optimal balance between fixed and variable inputs.

This second stage concludes at the juncture labelled 'M' where MP becomes zero while TP reaches its peak at point 'R.' This second stage is of significant importance as rational producers naturally strive to operate within it. This is because TP attains its highest value here, and the MP associated with each variable input remains positive.

Third Phase – Negative Return to a Factor

During the third phase, the incorporation of extra variable inputs leads to a reduction in Total Product (TP). Moreover, the Marginal Product (MP) turns negative at this point. Consequently, this stage is termed as experiencing negative returns to a factor. The fundamental reason for this phase lies in the insufficient coordination between the variable and fixed inputs.

The third stage commences right after point 'M' on the MPP curve and extends to a point on the TPP curve. The Marginal Product for each variable input remains negative throughout these three stages. Consequently, no rational firm would intentionally opt to function within this phase.



Production Functions

To understand this law with the help of another example:

Fixed Factor : Land (Acres)	Variable Factor: Land (Units)	TPP (Total Physical Product) (Quantity)	MPP (Marginal Physical Product) (Quantity)	
1	0	0	-	
1	1	2	2	Stage I
1	2	6	4	
1	3	12	6	
1	4	16	4	Stage II
1	5	18	2	
1	6	18	0	
1	7	14	-4	Stage III
1	8	8	-6	

In this example, the land is the fixed factor and labour is the variable factor. The table shows the different amounts of output when you apply different units of labour to one acre of land which needs fixing.

Law of Variable Proportions – in terms of TPP

If we keep other factors constant and increase the units of the variable factor, then the TPP initially increases at an increasing rate, then at a diminishing rate, and finally declines. Therefore, it has three clear stages:

I – TPP increasing at an increasing rate
II – TPP increasing at a diminishing rate
III – TPP declining

Law of Variable Proportions in terms of MPP

The Law also states that if we keep all other factors constant and increase the units of a variable factor, then the marginal physical product initially increases, then decreases, and finally becomes negative. Therefore, it has three stages:

I – MPP increasing

II – MPP decreasing but remaining positive

III – MPP continuing to decrease and becoming negative

DIFFERENCE BETWEEN LAW OF VARIABLE PROPORTIONS AND LAW OF RETURNS TO SCALE

1. Definition

Law of Variable Proportions: Explains changes in output when one input (factor) is varied while keeping other inputs constant.

Law of Returns to Scale: Explains changes in output when all inputs (factors) are varied proportionately.

2. Time Frame

Law of Variable Proportions: Operates in the short run, where at least one factor remains fixed.

Law of Returns to Scale: Operates in the long run, where all factors of production are variable.

3. Number of Variable Factors

Law of Variable Proportions: Only one factor of production (e.g., labour) is variable, while others are fixed.

Law of Returns to Scale: All factors of production are variable and change proportionately.

4. Scale of Production

Law of Variable Proportions: The scale of production remains constant as only one input changes.

Law of Returns to Scale: The scale of production changes as all inputs increases proportionately.

5. Stages

Law of Variable Proportions: Has three stages—Increasing Returns, Diminishing Returns, and Negative Returns.

Law of Returns to Scale: Has three types—Increasing Returns, Constant Returns, and Decreasing Returns to Scale.

6. Causes

Law of Variable Proportions: Arises due to better or over-utilization of the fixed factor.

Law of Returns to Scale: Arises due to economies (or diseconomies) of scale as production expands.

7. Focus

Law of Variable Proportions: Focuses on the marginal product and total product of the variable input.

Law of Returns to Scale: Focuses on the proportional relationship between inputs and output.

8. Applicability

Law of Variable Proportions: Applicable in agriculture and small-scale production, where one factor (e.g., land) is fixed.

Law of Returns to Scale: Applicable in large-scale production and industries, where all inputs can be changed.

9. Graphical Representation

Law of Variable Proportions: Represented using Total Product (TP), Marginal Product (MP), and Average Product (AP) curves.

Law of Returns to Scale: Represented through proportional changes in input-output curves.

10.Example

Law of Variable Proportions: Adding more workers to a fixed piece of land.

Law of Returns to Scale: Doubling both labour and machinery in a factory and observing output changes.

10. Explain the shapes of Average Cost, Average Variable Cost and Average Fixed Cost curves. Prove that Marginal cost depends only on Variable Cost. Explain the Interrelationship between MC and AC.

Average cost is one of the fundamental concepts for demand and supply, which directly affects the supply curve and price determination of a product in economics. Cost of production is the amount of money spent by a company in production of goods, they include both prime costs and supplementary costs. There are generally five types of production costs: fixed, variable, total, average and marginal.

Average cost is defined as per unit cost of production, which is the ratio of the total cost of production to the total number of units produced. It can also be defined as the sum of average variable cost and average fixed cost. Average cost of production can vary depending on the units produced by a company. It is inversely proportional to the number of units produced and directly proportional to the total variable cost, i.e., if the number of units produced by a firm increases then its total average cost would decline and vice versa. In simple words, Average cost is the amount of money a firm or a business has to spend to produce a single unit of output.

Cost of Production:

Assuming a very simple model for a given company, production is instantaneous. In order to acquire inputs a firm has to pay for them, this is known as the Cost of Production. Once the output has been produced the firm sells it in the market and earns the revenue, the difference between the revenue and cost is called the firm's profit. Production cost includes factors such as raw materials, land, labour and capital required for the process of production.

For example: Consider a vehicle, so its production cost would include rubber needed for the tyres, labour costs paid, raw materials and manufacturing supplies needed to assemble that vehicle.

There are 3 types of Cost of Production:

- Variable Cost
- Fixed Cost
- Total Cost

Variable Cost: Variable Cost is the type of cost which changes with any changes in the level of production. They are directly proportional to the production volume. If the production volume of a commodity increases then its variable cost will also increase. Variable costs include factors like: commissions from sales, labour costs, raw materials and utility costs.

For example, let us consider an ice cream factory, the variable cost will include: labour cost and the cost of raw materials required. If the cost of raw materials and labour cost incurred in the production of a single unit of ice cream is ₹70 and the company produces 2000 such units, then the total variable cost is ₹1,40,000.

Fixed Cost: Fixed Cost does not change irrespective of the volume of output produced; it remains fixed. Fixed costs are generally time limited. A fixed cost does not change even if the company has reached its maximum output capacity. Fixed costs may include rent, electricity bills, salaries and leases, this does not change irrespective of the number of customers a company may have.

Total Cost: Total Cost is the sum of both fixed and variable costs. All costs included right from production and manufacturing to delivery and services are covered under total cost.

Example: In an ice cream factory, the cost of raw materials and labour cost incurred in the production of a single unit of ice cream is ₹70 and if the company produces 2000 such units, then the total variable cost is ₹1,40,000. It also pays a rent of ₹60000 per month and utility bills of ₹7000. Hence the total cost of the ice cream factory is variable cost + fixed cost = ₹1,40,000 + ₹67000 = ₹2,07,000

The Average Cost of Production

Average Cost of Production is equal to the per unit cost of production divided by the total cost of the total output product. Average Cost of Production is also known as the Average Total Cost and it is the cost per output unit.

Average Cost Formula

Average Cost Formula is given by,

$$AC = TC \div Q$$

where,

AC = Average Cost

TC = Total Cost

Q = Total quantity of goods produced

Types of Average Cost

4 types of average costs:

- Average Fixed Cost
- Average Variable cost
- Short run Average costs
- Long run Average costs

Average Fixed Cost: Average Fixed Cost can be defined as the fixed production expenses of the company per unit of goods produced by it. Average fixed cost is defined as the ratio of total fixed cost with respect to its output.

$$AFC = TFC \div OUTPUT$$

AFC = Average Fixed Cost

TFC = Total Fixed Cost

or the difference between average total cost and average variable cost.

$$AFC = ATC - AVC$$

AFC = Average Fixed Cost

ATC = Average Total Cost

AVC = Average Variable Cost

Average Variable Cost (AVC): It is the total variable cost per unit of output. Average Variable Cost is the ratio of total variable cost to the total output. Average Variable Cost determines at what point should a company stop production of a particular product. If the price falls below the AVC the company may stop production and if the price is above the AVC then the company may continue its production. A cost varies only if the output of the company changes.

$$AVC = TVC \div Q$$

AVC = Average Variable Cost

TVC = Total Variable Cost

Q = Volume

Short Run Average Costs: The Short Run Average Cost incurred by the firm is defined as the Short Run Total Cost per unit of output.

$$SAC = TC \div Q$$

SAC = Short Run Average Costs

TC = Short Run Total Cost

Q = Output

Long Run Average Costs: In the long run all inputs are variable, there are no fixed costs. Hence the total cost and the total variable cost will coincide in the long term. Therefore, Long Run Average Cost is defined as the Long Run Total Cost divided by the total output.

$$LRAC = TC \div Q$$

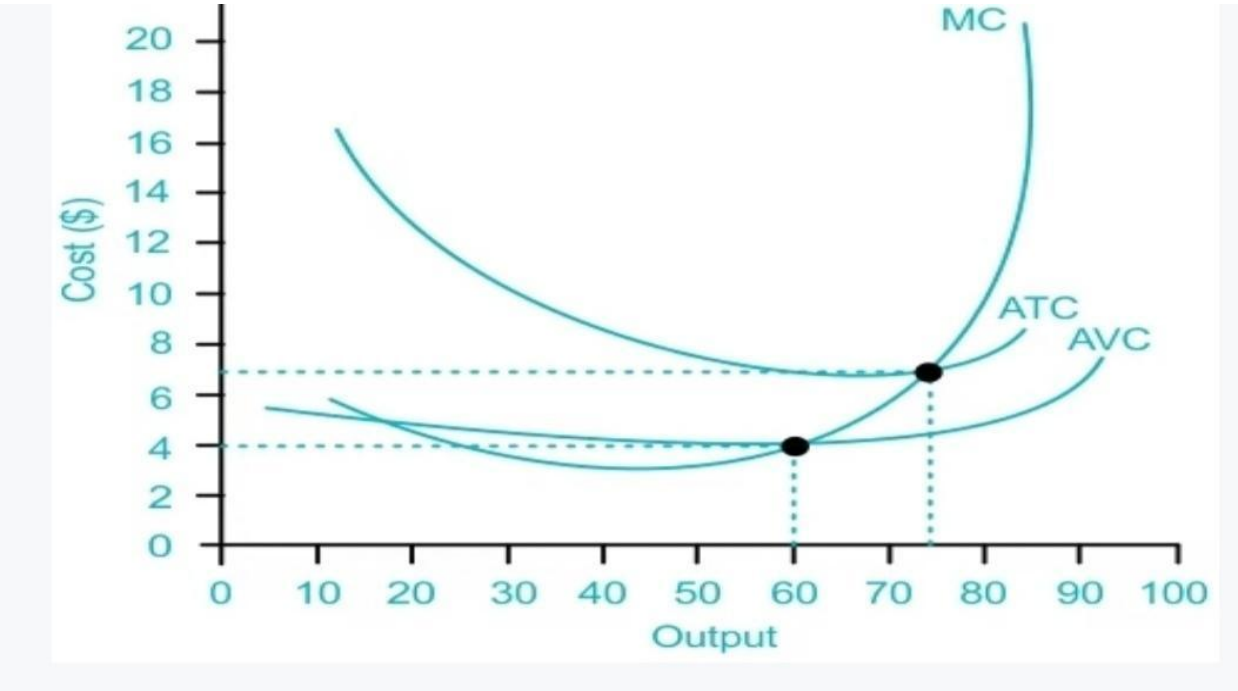
LRAC = Long Run Average Cost

TC = Long run Total Cost

Q = Output

The Average Cost Curve

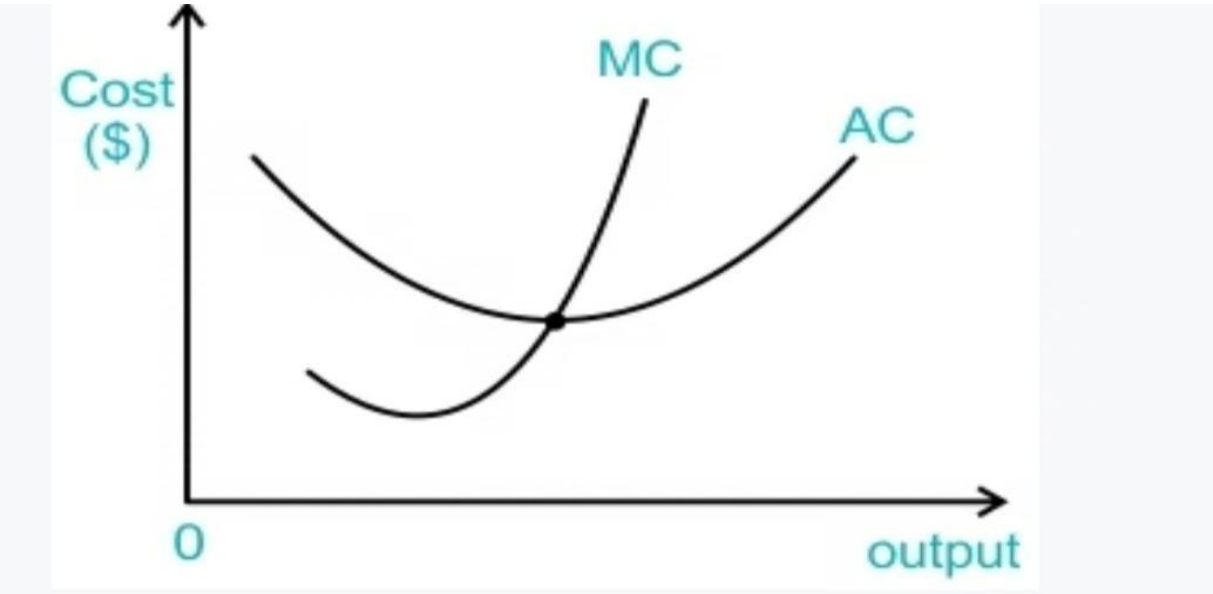
Average Cost is the total cost divided by the quantity of output. Refer to the diagram below representing the average cost curve.



Consider a factory, serving 40 coffee cups at 320$. The average total cost of producing each of 40 coffee cups is 320$ / 40 = 8$ per coffee. The average cost curve is generally a U-shaped curve, where the Average Total Cost is relatively high, because at a low level of outputs total costs are more than the fixed costs. Average total cost declines as the total fixed costs are more than increasing output quantity. In the average cost curve, initially the rise in the numerator of total costs is small as compared to the rise in denominator of the output. As output increases the average cost also begins to rise but diminishing returns kick in as the total costs begin to rise.

Relationship between Average Cost and Marginal Cost

The average cost is the total cost of manufacturing per unit and marginal cost is the cost required to produce one incremental unit. Average Cost and Marginal Cost impact each other as production fluctuates.



The graph above represents the average total cost, marginal cost and marginal revenue. When the average cost increases the marginal cost is always greater than the average cost. When the average cost decreases the marginal cost becomes less than the average cost. Hence average cost and the marginal cost are directly proportional to each other.

Difference between Average Cost and Marginal Cost

Let us learn about the differences between the average cost and the marginal cost.

- Average Cost is the ratio of the total cost of goods with respect to the total number of goods.
  Marginal Cost is the cost required to produce one more incremental unit.
- Average Cost determines the impact on total unit cost with respect to output level.
  Marginal Cost is an indicator if it is needed to produce an additional unit of goods.
- Average Cost = Total Cost / Number of Goods.
  Marginal Cost = Change in the Total Cost / Change in Quantity.

Prove that Marginal cost depends only on Variable Cost

To prove that marginal cost (MC) depends only on variable cost (VC), let's break down the concept of marginal cost and variable cost.

Definitions

- **Marginal Cost (MC):** Marginal cost is the additional cost incurred by producing one more unit of a good or service. It's the change in total cost resulting from a one-unit increase in output.
- **Variable Cost (VC):** Variable cost is the cost that varies directly with the level of output. It includes costs such as labour, raw materials, and fuel.
- **Fixed Cost (FC):** Fixed cost is the cost that remains constant even if the level of output changes. It includes costs such as rent, salaries, and depreciation.

Proof

Let's assume a firm produces x units of output. The total cost (TC) of production can be represented as:

$$TC = VC + FC$$

Since fixed cost is constant, the change in total cost (TC) resulting from a one-unit increase in output (x) will only depend on the change in variable cost (VC):

$$TC = VC$$

The marginal cost (MC) is defined as the change in total cost divided by the change in output:

$$MC = TC / x$$

Substituting TC = VC, we get:

$$MC = VC / x$$

Since x = 1 (one-unit increase in output), the equation simplifies to:

$$MC = VC$$

This shows that marginal cost (MC) depends only on the change in variable cost (VC)

In conclusion, marginal cost depends only on variable cost because the change in total cost resulting from a one-unit increase in output is solely due to the change in variable cost. Fixed cost remains constant and does not affect marginal cost.

11. Explain the Law of Supply. What are its exceptions? When does the supply curve take a backward bend?

The law of supply is also a fundamental principle of economic theory, like the law of demand. It was introduced by ***Prof. Alfred Marshall*** in his book Principles of Economics, which was published in 1890. The law explains the functional relationship between price and quantity supplied.

Statement of the Law:

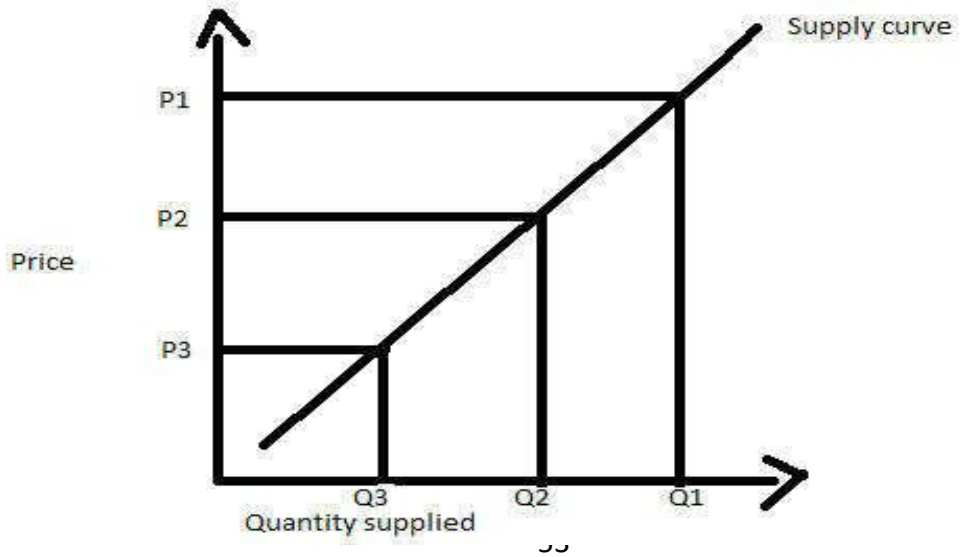
"Other things remaining constant, the higher the price of a commodity, the more is the quantity supplied, and the lower the price of a commodity, the less is the quantity supplied." In simple words, "other factors remaining constant, a rise in price results in a rise in the quantity supplied and vice versa. Thus, there is a direct relationship between price and quantity supplied.

Symbolically

$Sx = f(Px)$

Where,

- S = supply
- x = commodity
- f = function
- P = price of commodity



The above diagram shows the supply curve that is upward sloping (positive relation between the price and the quantity supplied). When the price of the good was at P3, suppliers were supplying Q3 quantity. As the price starts rising, the quantity supplied also starts rising.

The law of supply is based on the following assumptions:

- **Constant cost of production**: It is assumed that there is no change in the cost of production. A change in the cost of production will affect the profits of the seller. Therefore, less quantity will be supplied at the same price.
- **Constant production technique**: It is also assumed that the production technique does not change. Improved production techniques may lead to an increase in production, which in turn may lead to an increase in the supply at the same price.
- **No change in weather conditions**: It is assumed that there is no change in the weather conditions. Natural calamities like floods, earthquakes etc. may decrease supply.
- **No change in Government policy**: It is also assumed that government policies like taxation, trade policy, etc. remain unchanged.
- **No change in transport cost**: It is assumed that there is no change in the condition of transport facilities and transport costs. For example, a better transport facility increases supply at the same price.
- **Prices of other goods remain constant**: Prices of other goods are assumed to remain constant. If they change, the law of supply may not hold true because producers may transfer resources to other products.
- **No future expectations**: The law also assumes that the sellers do not expect future changes in the price of the product.

Exceptions to Law of Supply

Not every business scenario is determined by the law of supply. There are many exceptions — situations where the supply of goods and services isn't determined by the pricing. Here are some of the most common.

- **Economies of scale.**

When a producer becomes large enough, it may be able to apply economies of scale to reduce the cost of producing goods and services. As a result, it may be able to increase its supply while keeping prices stable or even reducing them.

- **Shift in business plan.**

If a business is shifting its market focus and plans to cease production of some products, it may temporarily increase the supply of those products at a low price to eliminate any remaining stock and raw materials. A business may also use this approach as an emergency measure if it needs cash in a hurry.

- **Monopoly.**

When there's only a single supplier of a good or service, the company may be able to increase or decrease its supply or pricing irrespective of external factors.

- **Competitive pricing.**

In a highly competitive market, businesses may increase the supply of their products while reducing the price to capture market share.

- **Expiring or dated goods.**

If perishable goods near their expiration date, a business may increase their supply early to try to recoup some of the production costs before the goods become unsellable.

- **One-of-a-kind goods.**

Handmade art or other rare goods cannot be easily reproduced, so the supply cannot expand even if the price rises.

- **Inelastic supply.**

For many goods, including agricultural products, it is difficult to quickly adjust the supply even if the price rises. It can take months or even years for crops to reach maturity and become available to customers. For example, an apple farmer who adds trees to their orchard won't be able to harvest the fruit for several years.

In economics, wage determination in the labour market is an important topic. Forces of demand for labour and supply of labour determine the equilibrium wage rate in a free labour market. Households supply labour and the supply of labour means the willingness and ability of households to sell labour at various wage rates in a given time period. The supply of labour is discussed for an individual worker, for the whole market and for an individual firm. In this article, we will explain the supply of labour by an individual worker.

Backward Bending Labour Supply Curve

For an individual worker, the supply of labour is the number of hours for which he/she is willing and able to work at various wage rates in a given time period. For an individual worker, labour supply curve is backward bending. This backward bending supply curve, or backward bending labour supply curve, is basically a graphical representation of the response of an individual worker towards wage increase where, when real wages increase to a certain level, the worker will substitute time previously devoted to paid work for leisure, due to which labour supply decreases and so less time is being offered by workers for work.

This supply curve for an individual worker shows an increasing supply of labour at first as wage rate rises, but when the wage rate further rises, the supply curve bends backward and shows a falling supply of labour. In labour markets, the labour supply curve for an individual worker is backward bending because, after a certain time, an increase in wages can lead to a decline in labour supply. This happens when increased wages provoke workers to work less and enjoy more leisure time.

Labour Leisure Trade-off

A trade-off faced by wage-earning individuals between the amount of time spent in working wage-paying work and satisfaction-generating unpaid time that allows individuals' participation in leisure activities and the productive use of time in paying attention to important self-maintenance, like sleep, is called the labour leisure trade-off. A basic key to this work-leisure trade-off is the comparison between the wage received on each working hour and the amount of satisfaction created by the use of unpaid time. An individual worker has to make a choice between work and leisure as a response to wage increase. Workers responses to wage increases are of the following two types:

Substitution Effect

The response of a worker to increase the number of working hours when wage rate increases is called substitution effect or incentive effect. In other words, the substitution effect of wage increases states that a higher wage rate makes work more attractive than leisure. Therefore, in response to a wage increase, the supply of labour increases and the worker gets a higher income. The opportunity cost of taking leisure is the prevailing wage rate. When wage rate increases, leisure will become expensive because higher wage will be given up in taking leisure. So, worker will substitute leisure with work. Due to the substitution effect, the hours of work increase with an increase in the wage rate.

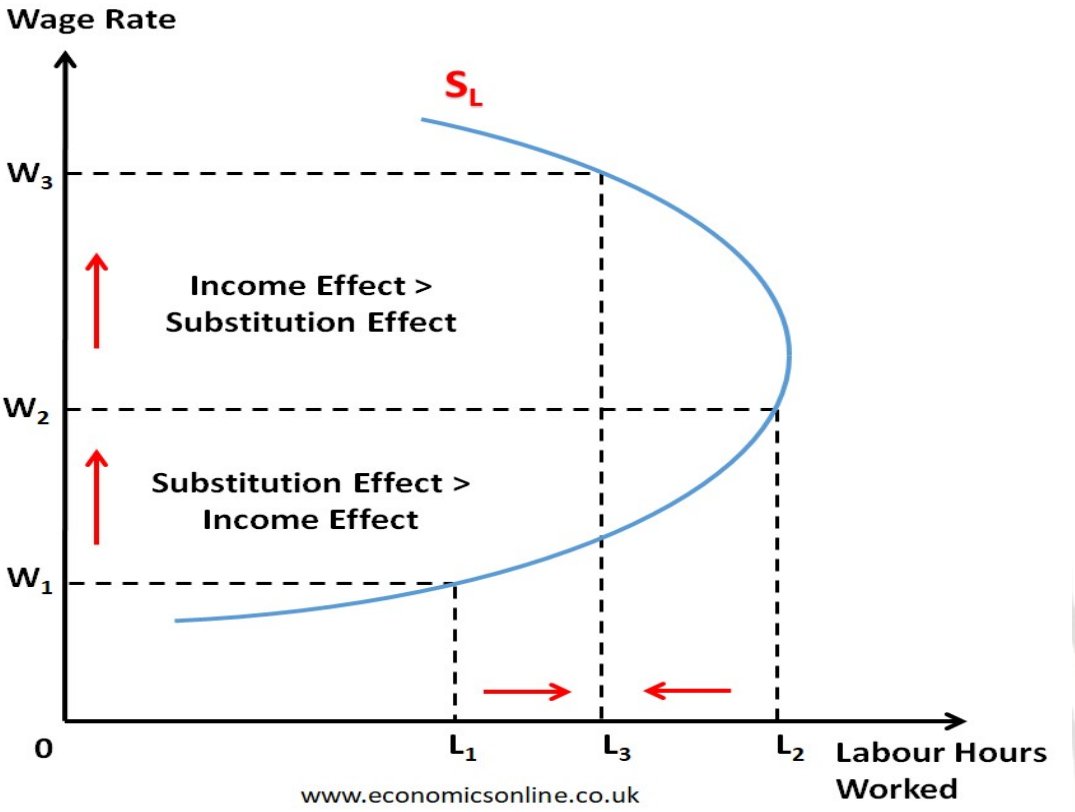
For example, if a person has large expenses and has no interest in enjoying leisure time, the substitution effect has more importance in this case. If wage rates increase, it provides a great incentive to work extra hours. In this way, the worker can get increased income and can afford to buy more goods or services.

Income Effect

The response of a worker to decrease the number of working hours when wage rate increases is called income effect. In other words, the income effect of a wage increase states that a greater wage means that workers can achieve a greater target income by working fewer hours. Therefore, if the wage rate increases after a certain level, it makes it easy for workers to get enough income by working fewer hours. So, worker will substitute work with leisure. Due to income effect, when wage rate increases, worker will decrease the number of working hours.

For example, if a person has only a few demands and is more interested in enjoying leisure time, his goal may be to get $36,000 per year, and after that he can maximize his time allocation of leisure time. In this case, after an increase in the wage rate above $36,000, the income effect dominates, and along with higher wages, he can afford to have more leisure time. This income effect provides the main reason for the backward-bending supply of labour.

The following graph Illustrates the labour supply curve for an individual worker, which is backward bending.



The above graph is plotted between wage rate (vertical axis) and labour hours worked (horizontal axis). In this graph, if real wages increase from W1 to W2, the substitution effect for an individual worker becomes greater than the income effect. Due to this stronger substitution effect, employees are more willing to increase work hours for pay from L1 to L2. This explains the logic of an upward slope of the graph. However, when real wages increase from W2 to W3, the number of hours available to work for pay decreases from L2 to L3. This is due to the presence of a strong income effect, which means that the marginal utility to be obtained from an extra hour of unpaid time is greater than the utility to be obtained from extra income that could be gained by working extra hours. So, the income remains the same or even increases by working fewer total hours.

This graph only explains the effect of changing wage rates on workers who were already subjected to those rates, and only those individuals' labour supply response was noticed. This graph did not consider the additional labour supplied by those workers that are working in other sectors or are now unemployed and seemed to be more attracted to the jobs in the sectors because of higher wages.

Assumptions for Labour Supply Theory

It is vitally important to understand that with the labour supply curve, there must be a set of assumptions that keep the curve backward bending. The following are some assumptions about the theory of labour supply:

- **Free to Work**

  Workers are free to choose whether they will work and how many hours they will be willing to work easily. It is important to understand that workers are the main focus of the labour supply theory. This theory is based on the concept that only workers can choose how much time they are willing to work. If workers are not willing to work, this means that this is working leisure for workers in terms of time.
- **No Contractual Obligations**

  There are no contract-based obligations for workers to work a particular number of hours. The contractual obligations will only involve the labour supply curve, not the number of hours worked.
- **Utility-Maximizing Agents**

  In terms of the economy, workers always work hard only to achieve the maximum output and the most money. That is why workers are utility-maximizing agents.
- **Disutility**

  According to this theory, it is also assumed that work provides disutility, which must be indemnified for by paying handsome wages.
- **Normal Good**

  It is assumed that unpaid leisure time is always considered a normal good.
- **Price-Takers**

  Both firms and workers are price-takers due to the highly competitive labour market.
- **Reservation Wage**

  The wage that workers received is a form of reservation wage or value wage because workers will have a particular amount of wage that can take them away from leisure. This situation is known as an opportunity cost-minimizing situation for workers.

In conclusion, a backward-bending labour supply curve is mostly affected by the wage rate in labour economics. According to the backward bending supply curve, the supply curve for an individual worker shows reduced supply when the wage rate rises after certain level. Backward-bending labour supply curve has also some limitations. These limitations state that workers should be allowed to choose their hours of work and should be paid high wages for overtime hours that workers worked. There are also some assumptions, like disutility, free to work, no contractual obligations, etc.

12. Distinguish between Fixed Cost and Variable Cost. Why are short run average cost curves U shaped? Can Total Cost curve start from the origin? Distinguish between Explicit and Implicit Cost.

Difference Between Fixed Cost and Variable Cost

- **Definition**

Fixed Cost: These are costs that remain constant, irrespective of the level of production or output.

Variable Cost: These are costs that vary directly with the level of production.

- **Dependence on Output:**

Fixed Cost: Fixed costs do not change with an increase or decrease in production. Even if output is zero, these costs must still be incurred.

Variable Cost: Variable costs change proportionately with changes in the level of production. If production is zero, variable costs will also be zero.

- **Nature:**

Fixed Cost: These costs are fixed in the short run and cannot be avoided.

Variable Cost: These costs are flexible and adjust as production levels change.

- **Behaviour in the Short Run:**

Fixed Cost: Remains constant and does not respond to output levels.

Variable Cost: Increases as production rises and decreases as production falls.

- **Behaviour in the Long Run:**

Fixed Cost: In the long run, fixed costs can become variable because all inputs can be adjusted.

Variable Cost: Continues to vary with production in both the short run and the long run.

- **Examples:**

Fixed Cost: Rent of premises, salaries of permanent staff, insurance, and depreciation on machinery.

Variable Cost: Cost of raw materials, wages of casual labour, electricity charges based on usage, and packaging expenses.

- **Cost Per Unit:**

Fixed Cost: Fixed cost per unit decreases as production increases because the cost is spread over more units.

Variable Cost: Variable cost per unit remains constant as long as input prices and technology remain unchanged.

- **Impact on Total Cost:**

Fixed Cost: Forms part of Total Cost (TC) but does not affect its changes.

Variable Cost: Affects Total Cost (TC) significantly since it increases or decreases with output.

- **Graphical Representation:**

Fixed Cost: On a graph, Fixed Cost is represented as a horizontal straight line, indicating it does not change with output.

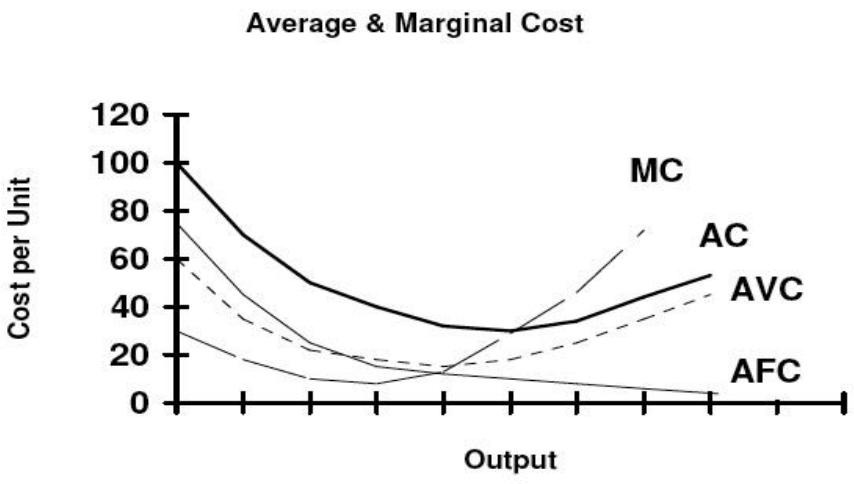
Variable Cost: Variable Cost starts at the origin and slopes upward, indicating a direct relationship with output.

The key difference is that Fixed Costs remain unchanged regardless of production levels, while Variable Costs change directly with output. A clear understanding of these costs helps businesses in cost management, pricing, and profit planning.

Short-run costs are those that vary with almost no time lagging. Labor cost and the cost of raw materials are short-run costs, but physical capital is not.

An average cost curve can be plotted with cost on the vertical axis and quantity on the horizontal axis. Marginal costs are often also shown on these graphs, with marginal cost representing the cost of the last unit produced at each point; marginal costs in the short run are the slope of the variable cost curve (and hence the first derivative of variable cost).

A typical average cost curve has a U-shape, because fixed costs are all incurred before any production takes place and marginal costs are typically increasing, because of diminishing marginal productivity. In this "typical" case, for low levels of production marginal costs are below average costs, so average costs are decreasing as quantity increases. An increasing marginal cost curve intersects a U-shaped average cost curve at the latter's minimum, after which the average cost curve begins to slope upward. For further increases in production beyond this minimum, marginal cost is above average costs, so average costs are increasing as quantity increases. For example: for a factory designed to produce a specific quantity of widgets per period—below a certain production level, average cost is higher due to under-used equipment, and above that level, production bottlenecks increase average cost.



Thus, the short run average cost (SAC) curve is U-shaped because of the law of variable proportions, which states that some factors are fixed and some are variable in the short run. The U-shape is due to the following factors:

Increasing returns to variable factor: Initially, the average cost falls as output increases.

Diminishing returns to variable factor: After reaching the minimum point, the average cost increases due to diminishing returns.

TC (Total cost) curve is the sum total of the total fixed cost and the total variable cost incurred in producing a given amount of output. In other words, TC = TFC + TVC. Since Total Fixed Cost (TFC) remains constant regardless of the quantity of output and Total Variable Cost changes with the change in level of output, so at zero levels of output TFC exists but TVC is zero, therefore, TC curve originate not from origin 'O' but from the point on OY axis where TFC intersects (refer to the diagram). Since TVC is zero when output is zero, so it starts from the origin as shown in the adjacent diagram.

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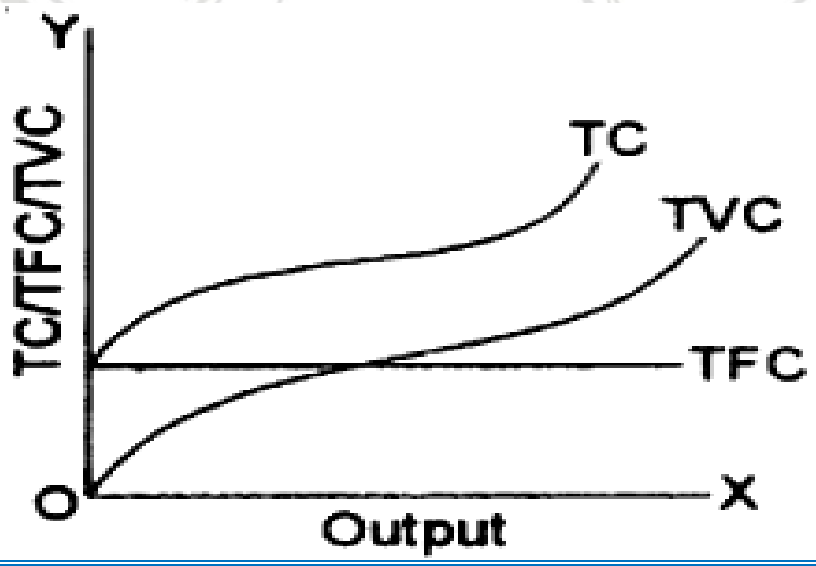


The distinction between Explicit Cost and Implicit Cost are:

1. Nature of Cost

Explicit Cost: These are actual, out-of-pocket expenses incurred by a business when making payments to external entities.

Implicit Cost: These are opportunity costs associated with using resources owned by the business, where no monetary payment is made.

2. Visibility

Explicit Cost: Explicit costs are visible and easily identifiable because they involve direct monetary payments. They appear on the financial statements of the business.

Implicit Cost: Implicit costs are not visible as they involve foregone opportunities and do not involve actual payments. They are not recorded in the financial statements.

3. Measurement

Explicit Cost: These costs are easy to measure as they involve definite, tangible monetary transactions.

Implicit Cost: These costs are subjective and difficult to measure because they represent the value of opportunities sacrificed.

4. Examples

Explicit Cost:

- Wages paid to employees
- Rent paid for office space
- Utility bills (electricity, water, etc.)
- Interest paid on loans
- Payment for raw materials or machinery

Implicit Cost: Forgone salary of a business owner who chooses to run their own business instead of working elsewhere. The income lost by using company-owned property instead of

renting it out. The interest income foregone by using personal funds for business instead of investing them elsewhere

5. Monetary Involvement

Explicit Cost: Involves direct monetary payments to others.

Implicit Cost: Involves no actual cash outflow but reflects the sacrifice of alternative benefits.

6. Impact on Profit

Explicit Cost: These costs are subtracted to calculate accounting profit, which focuses on tangible cash flows.

Implicit Cost: These costs are considered when calculating economic profit, which reflects the true cost of all resources, including opportunity costs.

7. Accounting Treatment

Explicit Cost: Recorded and accounted for in the financial statements (e.g., income statement or balance sheet).

Implicit Cost: Not recorded in financial statements but are used in economic analysis to assess the efficiency of resource allocation.

8. Practical Example

Imagine a business owner uses their own property for their business:

Explicit Cost: If the business owner rents a property and pays $1,000 monthly, this is an explicit cost.

Implicit Cost: If the owner uses their own property, the implicit cost is the rental income they forego by not leasing it to someone else. Similarly, if the owner works in their business and forgoes a salary of $5,000, they could earn elsewhere, this is also an implicit cost.

Thus, Explicit Costs are direct, measurable, and involve actual monetary payments, such as wages, rent, and raw materials. Implicit Costs represent opportunity costs, are not recorded, and do not involve direct payments but reflect the value of foregone alternatives, like potential rental

income or salaries. Both costs are essential for decision-making. Explicit costs impact accounting profit, while implicit costs help calculate economic profit, which gives a more comprehensive view of a business's performance.

13. What are the features of Perfect Competition? Explain the Short run equilibrium of a perfectly competitive firm.

Definition

Perfect competition is a unique form of the marketplace that allows multiple companies to sell the same product or service. Many consumers are looking to purchase those products. None of these firms can set a price for the product or service they are selling without losing business to other competitors. There are no barriers to any firm that is looking to enter or exit the market. The final output from all sellers is so similar that consumers cannot differentiate the product or service of one company from its competitors.

Features of Perfect Competition

The main features of perfect competition are as follows:

- **Many Buyers and Sellers** – There will always be a huge number of buyers and sellers in this form of marketplace. The advantage of having a large number of small-sized producers is that they cannot combine to influence the market price. If the quantity offered by an individual seller is very small compared to the total market produce, they cannot influence the market price independently. Similarly, if there are many buyers, then an individual will not have the power to dictate conditions to the market or influence the price by altering demand for a product. The individual demand will not be large enough to change the price.
- **Homogeneity** – The product or service produced by the buyers in a perfectly competitive market should be homogenous in all respects. There should be no differentiation between them in terms of quantity, size, taste, etc., so that the products are perfect substitutes for each other. If a seller tries to charge a higher price for products that are so similar, they will lose their customers immediately.
- **Free Entry and Exit** – Another condition of a perfectly competitive market is that no artificial restrictions prevent a firm's entry, or compel an existing firm to stay put when they

want to leave. Their decision to enter, stay or leave the market depends purely on economic factors.

- **Perfect Knowledge –** The buyers and sellers have perfect knowledge about the market conditions. The buyers are aware of the details of the product sold as well as its price. At the same time, the sellers know about the potential sales of their products at different price points. Since the buyers are already informed about the product, there is no need for advertising or sales promotion. So, firms don't have to invest a single penny in these activities. It also helps sellers save on advertising or other marketing activities, which keeps the price of their products low.
- **Mobility of Factors of Production –** The factors of production like labour, raw materials and capital should have total mobility under perfect competition. The labour should have the freedom to move from one place (industry, market or production unit) to another depending on their remuneration. Even the raw materials and capital should not have any restrictions in movement.
- **Transport Cost –** In the perfectly competitive market, the costs for transporting goods, services or factors of production from one place to another is either zero or constant for all sellers. The assumption is that all sellers are equally near or farther away from the market. Thus, the transport cost is uniform for all of them. The result is that the overall costs for production and the selling price are the same across the board.
- **Absence of Artificial Restrictions –** There is no interference from the government or any other regulatory body to hinder the smooth functioning of the perfect competition. There are no controls or restrictions over the supply or pricing and the price can change solely based on the demand and supply conditions.
- **Uniform Price –** There is a single uniform price for all products and services in a perfectly competitive market. The forces of demand and supply determine it.

Perfect competition is one of the most smoothly functioning markets, with many buyers and sellers working together in total harmony. Unfortunately, it is a hypothetical situation that does not exist in reality. But markets should aim to be as close as possible to this form of market to ensure a fair price for all goods and services.

The short run equilibrium of a perfectly competitive firm.

The short-run equilibrium of a perfectly competitive firm refers to the point at which the firm maximizes its profits in the short run, given the existing market conditions. In a perfectly competitive market, firms are price-takers, meaning they have no control over the market price of their product.

Assumptions: To analyse the short-run equilibrium of a perfectly competitive firm, we make the following assumptions

- **Perfect competition:** The firm operates in a perfectly competitive market, where there are many firms producing a homogeneous product.
- **Short run:** The firm's plant and equipment are fixed, and the firm can only adjust its variable inputs, such as labour and raw materials.
- **Profit maximization:** The firm's objective is to maximize its profits.

Short-Run Equilibrium Conditions

For a perfectly competitive firm, the short-run equilibrium conditions are:

i) **Marginal Revenue (MR)** = Marginal Cost (MC): The firm will produce the quantity of output where the marginal revenue (MR) equals the marginal cost (MC).

ii) **MR = Price (P)**: Since the firm is a price-taker, the marginal revenue (MR) is equal to the market price (P) of the product.

iii) **MC = Average Variable Cost (AVC)**: In the short run, the firm will produce the quantity of output where the marginal cost (MC) equals the average variable cost (AVC).

Equilibrium Output and Price

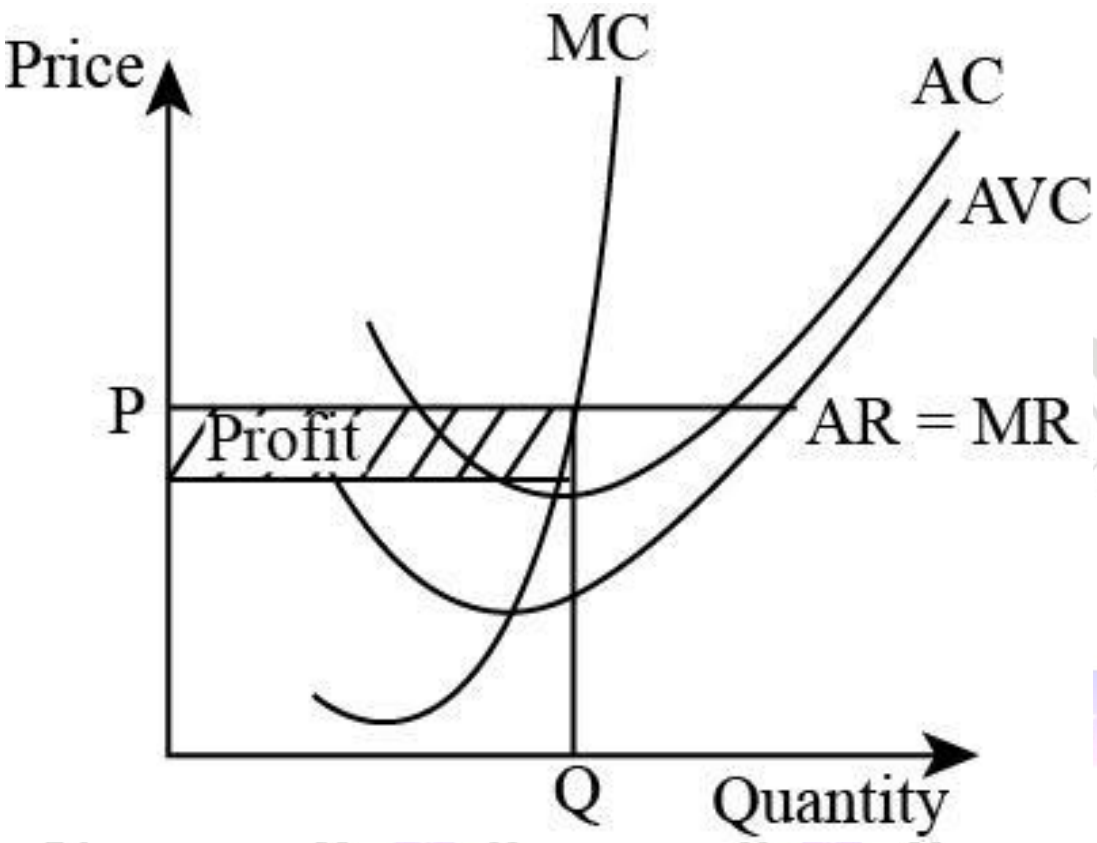
The firm's equilibrium output and price can be determined by equating MR and MC.

Since MR = P, we can equate P and MC to find the equilibrium output.

Equilibrium Output: The firm will produce the quantity of output where P = MC.

Equilibrium Price: The equilibrium price is determined by the market and is equal to the marginal revenue (MR).

Graphical Representation



The short-run equilibrium of a perfectly competitive firm can be represented graphically using the following curves:

1) **Marginal Cost (MC) Curve:** The MC curve shows the additional cost of producing one more unit of output.
2) **Average Variable Cost (AVC) Curve:** The AVC curve shows the average variable cost of producing each unit of output.
3) **Marginal Revenue (MR) Curve:** The MR curve shows the additional revenue generated by selling one more unit of output.
4) **Demand Curve:** The demand curve shows the relationship between the price of the product and the quantity demanded.

In conclusion, the short-run equilibrium of a perfectly competitive firm is determined by equating marginal revenue (MR) and marginal cost (MC). The firm will produce the quantity of

output where P = MC, and the equilibrium price is determined by the market. The graphical representation of the short-run equilibrium shows the intersection of the MC and MR curves, which determines the equilibrium output and price.

14. Differentiate between money wages and real wages. Critically discuss the Marginal Productivity Theory of Wages.

Money Wages*:* Money wages (also known as nominal wages) refer to the amount of money paid to a worker for their work or services. This is the actual dollar amount the worker receives before considering the effects of inflation or the purchasing power of that money.

Real Wages*:* Real wages, on the other hand, refer to the amount of goods and services the worker can actually buy with their money wages. It takes into account the effects of inflation and the cost of living. To calculate real wages, we need to adjust money wages for changes in the price level or purchasing power.

Difference Between Money Wages and Real Wages:

- **Definition:**

  Money Wages (Nominal Wages): Money wages refer to the total amount of monetary compensation received by a worker for their labour over a specific period. This is expressed in terms of currency, such as dollars, rupees, or euros, without considering the purchasing power of that money.

  Example: A worker earning $20 per hour or $50,000 per year.

  Real Wages: Real wages refer to the purchasing power of the money wages, i.e., the quantity of goods and services that can be bought with the wages earned. Real wages account for inflation or changes in the cost of living.

- **Relation to Inflation:**

  Money Wages: Money wages remain constant in nominal terms unless there is an explicit increase or decrease due to salary adjustments, irrespective of changes in the price level or inflation.

Real Wages: Real wages fluctuate depending on changes in the price level. If inflation rises and wages remain unchanged, real wages decrease because purchasing power declines.

- **Focus of Measurement:**

Money Wages: Focuses on the amount of money earned, without considering its value or what it can buy.

Real Wages: Focuses on the standard of living or economic well-being of workers by measuring what their earnings can actually purchase.

- **Impact of Price Changes:**

Money Wages: Price changes do not directly affect money wages unless there is an adjustment in salary due to inflation.

Real Wages: Price changes directly affect real wages. If prices rise (inflation) and wages stay the same, real wages fall, reducing purchasing power.

- **Economic Implications:**

Money Wages: Money wages are often used for short-term financial planning, contracts, and agreements without considering changes in living costs.

Real Wages: Real wages provide a clearer picture of workers' economic well-being and are used to evaluate living standards, productivity, and the effectiveness of economic policies.

- **Policy Relevance:**

Money Wages: Useful for understanding labour contracts, taxation, and nominal compensation.

Real Wages: Crucial for evaluating whether workers' living standards are improving or declining over time.

- **Examples:**

Money Wages Example: A worker receives $500 per week. This is their nominal wage, and it remains constant unless renegotiated.

Real Wages Example: If inflation increases by 10%, the cost of goods and services rises. Even though the worker still earns $500, their ability to purchase goods and services decreases, effectively lowering their real wage.

Understanding the difference helps policymakers, employers, and workers assess the real economic impact of wages and inflation on individuals and the broader economy.

Marginal Productivity Theory of Wages

According to the Marginal Productivity Theory, wages will be equal to the value of marginal productivity of labour. The marginal productivity theory of wage states that the price of labour, i.e., wage rate, is determined according to the marginal product of labour. This was stated by the neoclassical economists, especially ***J. B. Clark***, in the late 1890s.

The marginal productivity theory is based on the following assumptions:

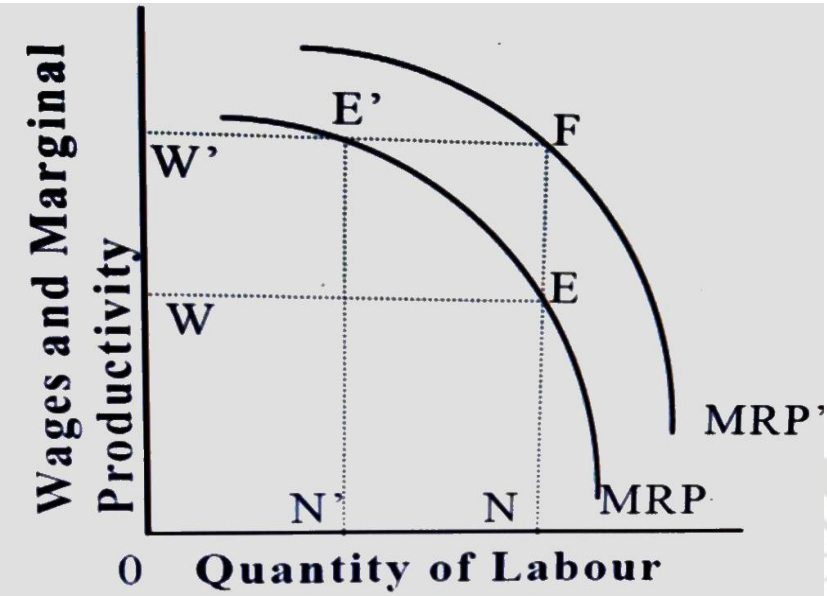
i) It assumes the existence of perfect competition.

ii) All labourers are homogenous in character.

iii) The theory is based on the law of diminishing marginal returns.

iv) It assumes that different factors can substitute each other.

According to this theory, wage is equal to the value of marginal product. If the marginal product is more than the wages, then it will be profitable to engage a greater number of labourers. This is because the total revenue earned due to additional employment is more than the total cost of engaging them. But due to the operation of law of diminishing marginal return, the marginal value product will decline, if labour is engaged beyond a marginal value product, then it will be unprofitable to engage more labourers and hence, their engagement will be reduced until wages are equal to the marginal value product.



In the figure, If ON is the available supply of labour, OW is the equilibrium wage rate. Now, if the wage rate is increased to OW' by a collective bargaining of trade unions, NN' number of workers become unemployed. Thus, trade unions cannot enhance wages without creating unemployment. But, if the rise in wage brings about a sufficient increase in efficiency and productivity so that the Marginal productivity curve shifts upward (MRP'), then unemployment will not be created.

Limitations of Marginal Productivity Theory of Wage:

This neo-classical theory of wage determination is subject to a large number of criticisms. Most of the criticisms of this theory are directed against the assumptions. Most of the assumptions are unrealistic.

The Main Criticisms are:

i. In the real world, perfect competition does not exist—both in the product market and in the labour market. Imperfect competition is found in all the markets. This theory, therefore, has limited applicability in the real world. If it is applied to the imperfectly competitive market, the workers will be subject to exploitation.

ii. Labour can never be homogeneous— some may be skilled and some may be unskilled. Wage rate of a worker is greatly influenced by the quality of labour. A higher wage rate is

enjoyed by the skilled labour compared to the unskilled labour. This simple logic has been totally ignored by the authors of this theory.

iii. Perfect mobility of labour is another unrealistic assumption. Mobility of labour may be restricted due to socio-political reasons.

iv. The marginal productivity theory of wage ignores the supply side of labour and concentrates only on the demand for labour. It is said that labour is demanded because labour is productive. But why labour is supplied cannot be answered in terms of this theory. This is because of the fact that, at a given wage rate, any amount of labour is supplied. But we know that higher the wage rate, higher is the supply of labour. This positive wage-labour supply relationship has been ignored by the makers of this theory.

v. Full employment of resources is another unrealistic assumption.

vi. This theory, in fact, is not a wage theory but a theory of employment. Wage rate is predetermined. At the given wage rate OW, how many units of labour are supplied can be known from this theory. In this sense, it is a theory of employment and not a theory of wages.

vii. Finally, this theory ignores the usefulness of trade union in wage determination. Trade union, through its collective bargaining power, also influences wage rate in favour of the members of the organization.

In view of all these criticisms, the marginal productivity theory of wages has become useless.

15. Define Rent. Critically explain Ricardian Theory of Rent. Show that Rent element exists in other factor elements too. Distinguish between rent and quasi rent.

Rent

Rent is the income derived from the ownership of land and other free gifts of nature. The neoclassical economist ***Alfred Marshall***, and others after him, chose this definition for technical reasons, even though it is somewhat more restrictive than the meaning given the term in popular

usage. Apart from renting land, it is of course possible to rent (in other words, to pay money for the temporary use of any property) houses, automobiles, television sets, and lawn mowers on the understanding that the rented item is to be returned to its owner in essentially the same physical condition.

In classical economics, rent was the income derived from the ownership of land and other natural resources in fixed supply. This definition originated in the 18th century as part of the explanation of the distribution of income within society. Classical economists of the 18th and 19th centuries divided society into three groups: landlords, labourers, and businessmen (or the "moneyed classes"). This division reflected more or less the socio-political structure of Great Britain at the time. The concern of economic theorists was to explain what determined the share of each class in the national product. The income received by landlords as owners of land was called rent.

It was observed that the demand for the product of land would make it profitable to extend cultivation to soils of lesser and lesser fertility, as long as the addition to the value of output would cover the costs of cultivation on the least fertile acreage cultivated. On land of greater fertility— "intra marginal land"—the costs of cultivation per unit of output would be below that price. This difference between cost and price could be appropriated by the owners of land, who benefitted in this way from the fertility of the soil—a "free gift of nature."

Marginal land (the least fertile cultivated) earned no rent. Since, therefore, it was differences in fertility that brought about the surplus for landowners, the return to them was called differential rent. It was also observed, however, that rent emerged not only as cultivation was pushed to the "extensive margin" (to less fertile acreage) but also as it was pushed to the "intensive margin" through more intensive use of the more fertile land. As long as the additional cost of cultivation was less than the addition to the value of the product, it paid to apply more labour and capital to any given piece of land until the net value of the output of the last unit of labour and capital hired had fallen to the level of its incremental cost. The intensive margin would exist even if all land were of equal fertility, as long as land was in scarce supply. It can be called scarcity rent, therefore, to contrast it with differential rent.

In modern economic usage, rent is represented as the difference between the total return to a factor of production (land, labour, or capital) and its supply price—that is, the minimum amount necessary to attain its services.

The modern extension of this view is that the return to any other component in production may also contain elements of rent, consisting of the difference between the income of a productive factor and its real supply price or cost. Because the supply of land is fixed, the supply price of land is effectively zero and the whole of its return is rent. The supplies of labour and capital, on the other hand, are responsive to the prices offered for them, and the portion of their return regarded as cost will be greater for those with many alternative uses. The rent portion of a productive factor's return also decreases as the analysis is shifted to the long run because there are more alternative uses open to economic resources in the long run.

Ricardian Theory of Rent

The Ricardian Theory of Rent is a fundamental concept in economics that explains how rent is determined. The theory is named after the British economist, ***David Ricardo,*** who developed the concept in the early 19th century. The theory is based on the assumption that land is a fixed factor of production and that its supply is limited.

According to The Ricardian Theory of Rent, rent is the payment made for the use of land. It is determined by the difference in productivity between the best and worst land in use. The rent on the best land is determined by the marginal productivity of the last unit of land brought into production. This means that the rent on the best land is equal to the surplus value of the output over the cost of production.

The Ricardian Theory of Rent has been subject to several criticisms. The following are some of the critiques of the theory:

- **No consideration for improvements:** The Ricardian Theory of Rent assumes that land is a fixed factor of production and does not consider any improvements made on the land. This means that the theory does not take into account any increase in productivity resulting from technological advancements or better farming methods.
- **Assumes perfect competition**: The Ricardian Theory of Rent assumes perfect competition, which is not always the case. In reality, there may be monopolies or oligopolies that can influence the price of land and rent.

- **Ignores variations in fertility**: The theory assumes that the fertility of the land is uniform, but in reality, there can be variations in fertility that can affect the productivity of the land.
- **Neglects the influence of demand:** The theory assumes that rent is determined solely by the productivity of land and does not consider the influence of demand for land on rent prices.

Despite these criticisms, The Ricardian Theory of Rent remains a fundamental concept in economics. The theory explains how the rent is determined and provides a basis for understanding the relationship between land and production. It has also been extended to explain the concept of differential rent, which occurs when the land of varying productivity is used for production.

In conclusion, The Ricardian Theory of Rent provides a basis for understanding how rent is determined. While the theory has its limitations and criticisms, it remains an important concept in economics and has contributed to the development of other related concepts such as differential rent.

Rent in other factor elements:

Ricardo restricted his theory of rent to the income from land only. In his opinion, rent of land arises owing to the fixed supply of land and owing to differences in fertility or situation of the different plots of land. The superior lands get a surplus income over the cost of producing crops; and this differential gain or producer's surplus is the rent of land.

Marshall developed the Ricardian idea of rent by introducing the concept of quasi-rent. In his opinion, rent is not peculiar to land only; it may also arise in the short period in the income from machines and man-made appliances. The latter type of man-made capital goods may enjoy a surplus in the short period as their supplies, like the supply of land, remain more or less fixed in the short period; this surplus, however, disappears in the long run when the supply of these man-made appliances increases.

For this reason, Marshall describes the short-run net earnings of their man-made appliances as quasi-rent, as distance from rent proper which appears in the case of land only because of its limited supply even in the long run.

Modern writers like ***Mrs. Robinson*** and others have made a further extension of the concept of rent but in a different way. They have defined economic rent as the excess of actual earnings of a factor over its minimum supply price or transfer earnings. In this sense, rent arises not only in the income of land but also in the remuneration of any other factors (such as labour, capital and entrepreneur) on account of inelastic supply of the factor.

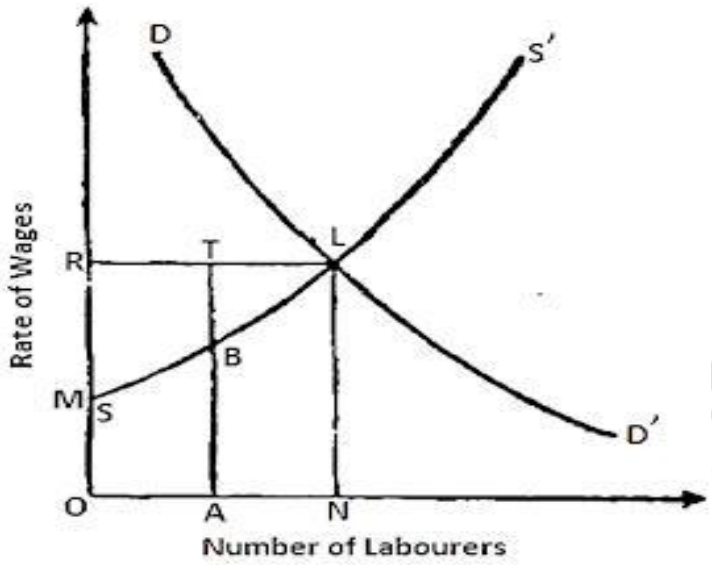
I. Economic rent in the income from land:

From the standpoint of the economy as a whole, the supply of land is absolutely fixed or is perfectly inelastic at all prices, and so from this point of view land has no alternative earnings and its transfer earnings are zero. For this reason, from the standpoint of the economy as a whole, the entire earnings of land represent a surplus and so can be treated as rent. But, from the point of view of an individual farmer only the surplus labour cost represents economic rent.

II. Economic rent in wages:

Economic rent is found in wages when the supply of labour becomes inelastic or when the demand for labour increases in relation to its supply or when labour becomes highly specific in nature. Every labourer has a minimum supply prices and economic rent arises in wages when a labourer gets something excess over this minimum supply price.

Again, there is a large element of rent in the incomes of movie stars, painters, musicians, etc. As the supply of these people in the society is relatively inelastic simply because they possess rare natural talent. In the case of a blind singer, his entire earnings may constitute economic rent as normally his transfer or alternative earnings are zero. As a general rule it can be said that the more specific the labour, the greater proportion of its earnings that consist of rent.



In the figure, the OA-th labourer enjoys BT economic rent in his total earnings of AT, while the ON-th labourer has no economic rent in the total of economic rent for ON number of labourers is represented by the area RML.

III. Economic rent in interest:

Money-capital or loanable fund, like labour, has also a minimum supply price. If it gets some excess in its earnings due to a rise in its demand, the excess amount would represent economic rent in interest

The excess amount would represent economic rent in interest. In the short period the supply of some forms of loanable funds. Let us suppose that an investor is willing to lend his money-capital at the minimum supply prices of these funds may be inelastic and consequently their owners may get something excess over the minimum supply prices of these funds.

Let us suppose that an investor is willing to lend his money-capital at the minimum supply price of 12% interest, but due to a rise in the demand for money capital, he gets 16% interest. In such a case 4% excess interest represents rent element in interest or the investor's surplus earnings.

IV. Economic rent in profits:

Economic rent is also found in the income of the entrepreneur. In the short period the supply of efficient and highly skilled entrepreneurs may be limited. Owing to this reason, these entrepre-

neurs having superior organising abilities may earn more than normal profits. Such excess earnings over the normal profits represent rent in their incomes.

Thus, it is found that there can be an element of rent in the remuneration of all factors, i.e., in wages, interest and profits. In fact, the rent of land and the earnings of other factors in the short period, commonly described as quasi-rent, belong to a same broad group as all these arise due to the inelastic supply of the factor.

The supply of land is, however permanently inelastic and for this reason the surplus element in the income of land is more or less permanent, but the supply of other factors is not so fixed in the long run; it is so only in the short period. For this reason, the surplus element or rent element found in other incomes generally disappears in the long run. Accordingly, Marshall describes the rent of land as the leading species of a large genus. Thus, he observes, "The rent of land is seen, not as a thing by itself, but as the leading species of a large genus."

Quasi-rent

The concept of quasi-rent was introduced into economics by ***Marshall***. He defined Quasi-rent as 'the income derived from machines and other appliances of production made by man'. The supply of machine and tools cannot be increased in the short run and hence, these appliances will enjoy a surplus (i.e., rent) during the short period whenever their demand increases. As said by Marshall, 'this excess of the value of commodities over cost, produced by the appliances during the short period has enough resemblance to the excess value of the produce of land over cost to justify us in calling it a quasi-rent'.

In simple words, Quasi-rent is the surplus earned by those factors of production that are fixed in supply like capital equipment and other durable goods – the transfer price of which is zero in the short run. Their supply cannot vary immediately in response to change in demand. According to Silverman, 'the additional payment of those agents of production, the supply of which though alterable in the long period, is fixed in a short period, is technically known as quasi-rent'. Thus, quasi-rent arises only in the short run. It is the excess payment over and above the normal reward. This type of surplus will cease to exist in the long run, when their supply increases.

Difference between rent and quasi-rent

- According to Marshall, the distinction between rent and quasi-rent is only a matter of degree. Differential surplus arises in all classes of productive instruments. The fact is that if supply of a factor is permanently fixed, it earns rent; if it is fixed only in the short run, it gets quasi-rent; and if it is not fixed at all, it obtains interest. Thus, in the words of Marshall, 'rent is not a thing by itself but the leading specie of a large genus'. It only means that rent is not a thing of special kind, it is only one of the important members of a large family consisting of rent, quasi-rent and interest'.
- Rent is generally concerned with the land, while quasi-rent is concerned with machines, tools, durable items and all other factors of production.
- Economic rent is the excess of actual earning of a factor over its transfer earnings. Quasi-rent is the difference between TR and TVC.
- Economic rent accrues to a factor both in short run and long run (is of a permanent nature). But quasi-rent accrues to the fixed factors only in the short run and thus, of a temporary nature. 'Economic rent arises in case of those factors which have inelastic supply in the short run and long run. But quasi-rent arises in case of those factors which have inelastic supply in the short run but have elastic supply in the long run'.
- Rent arises from land and other free gifts of nature whereas the quasi-rent arises from the man-made capital equipment.
- Rent is an unearned income whereas quasi-rent is an essential payment.
- Rent cannot be zero whereas quasi-rent can be zero.

16. Explain the shape of a Labour Supply Curve. Critically discuss the Marginal Productivity Theory of Wages.

Labour Supply Curve

Economists need to analyse the labour market, and they do this with the help of the labour market graph, which is plotted with the wage rate (W) on the vertical axis and quantity or

employment (Q or E) on the horizontal axis. The wage rate is the price firms pay for employing labour at any point in time. The quantity of labour is the quantity of labour demanded or supplied at any point in time. To show labour supply on the labour market graph, economists use the quantity of labour supplied.

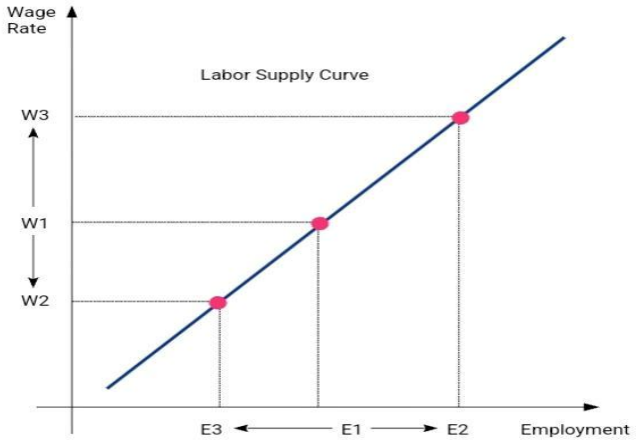
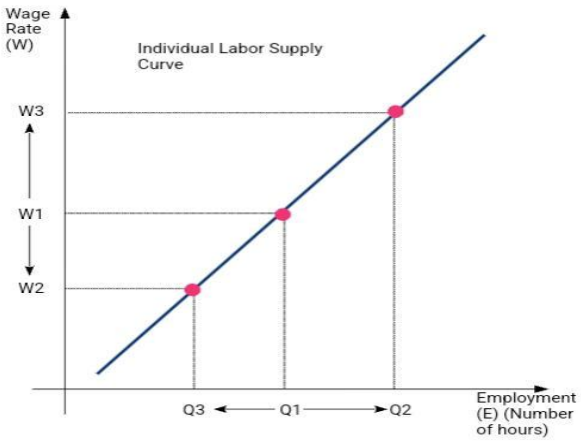


Fig 1: Labour Supply Curve

Figure 1 above shows a labour supply curve:

Individuals work by giving up leisure, and this is quantified in hours. Therefore, the labour supply curve of the individual will show hours as the quantity supplied. However, in the market, several individuals are supplying labour at the same time. This means that economists can quantify this as the number of workers available.

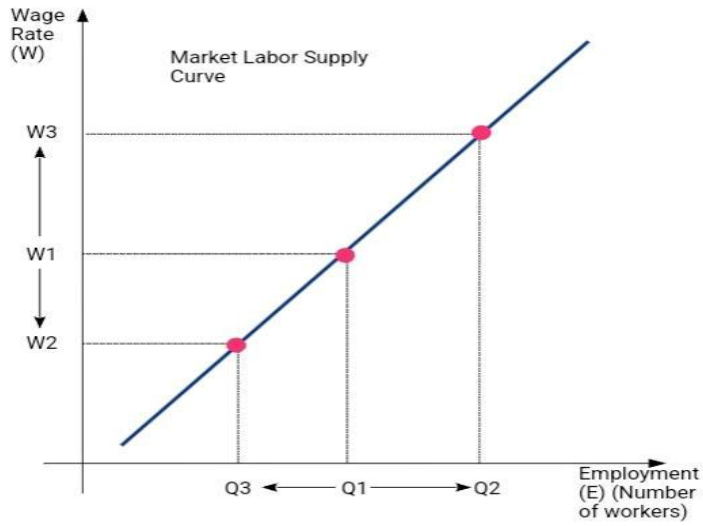
Fig 2: Market labour supply curve



The market labour supply curve is given in Figure 2.

The individual labour supply curve is given in Figure 3.

Fig 3: Individual labour supply curve



Individual labour supply curve: income and substitution effects

There is an exception when it comes to the individual labour supply curve. When the wage rate increases, an individual can:

1. Work less since they gain the same or more money for less work (income effect).
2. Work more hours since the opportunity cost of leisure is now higher (substitution effect).

Based on these two alternatives, the individual labour supply curve can either slope upward or downward.

Figure 4 is based on the following example: A young man works for 7 hours a day and receives $10 in wages. The wage rate was then increased to $20. As a result, he could either work for 8 hours a day as the opportunity cost of leisure increases (substitution effect) or only 6 hours a day as he gains the same or more money for less work (income effect).

Here are the two alternatives shown using the individual labour supply graph:

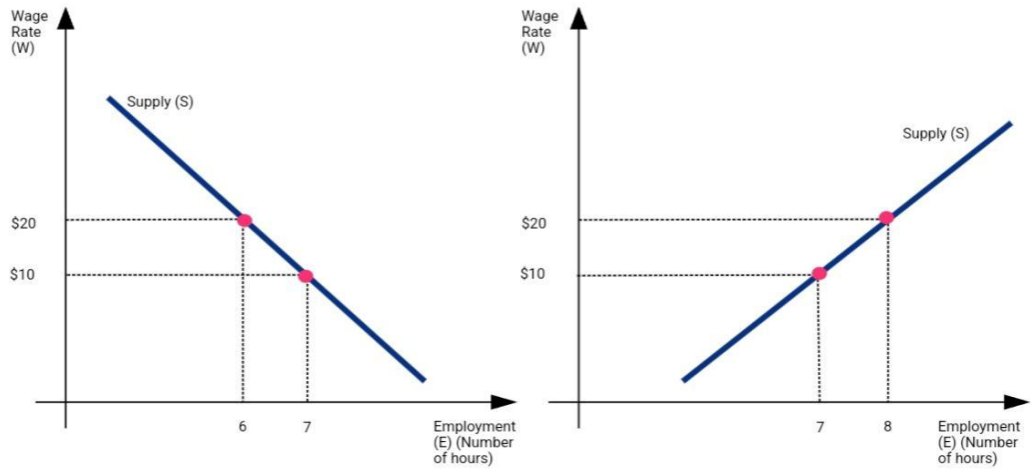


Fig 4: Income vs. Substitution effect on individual labour supply curve

Figure 4 above shows the income effect on the left panel and the substitution effect on the right panel. If the income effect dominates, then the individual labour supply curve would slope downwards but if the substitution effect dominates, then the individual labour supply curve would slope upwards.

Marginal Productivity Theory of Wages

Subject Matter of Marginal Productivity Theory of Wage:

The marginal productivity theory of wage states that the price of labour, i.e., wage rate, is determined according to the marginal product of labour. This was stated by the neo-classical economists, especially ***J. B. Clark***, in the late 1890s.

The term marginal product of labour is interpreted here in three ways: marginal physical product of labour (symbolized by MPPL), value of the marginal product of labour (symbolized by VMPL) and marginal revenue product of labour (symbolized by MRPL).

When marginal product of labour is expressed in money terms, we obtain VMPL. MRPL is the change in total revenue following a change in the employment of labour. Marginal productivity theory of wage states that wage of labour equals VMPL (= MRPL). Employer will employ labour up to the point until market wage equals labour's value of the marginal product (VMP) and marginal revenue product (MRP).

Assumptions of Marginal Productivity Theory of Wage:

The important assumptions of this theory are:

i. Perfect competition prevails in products market and in labour market. Perfect competition in product market implies that products are homogeneous and the price of the goods is given for all firms in the market. Perfect competition in labour market also implies that labour as well as firms behave as 'wage-takers'; no one can influence the wage rate.

   Consequently, labour supply curve, SL, becomes perfectly elastic. Since wage rate does not change, labour supply curve incidentally, becomes the average cost curve of labour (ACL) and it coincides with the marginal cost curve of labour (MCL).

ii. Law of variable proportions operates.

iii. The firm aims at profit-maximization.

iv. All labourers are homogeneous and are divisible.

v. Labour is mobile and is substitutable to capital and other inputs.

vi. Resources are fully employed.

Wage rate will be determined by the interaction of demand and supply curves of labour in the market. Labour demand curve is explained by the VMPL curve. Since perfect competition exists in the product market, VMPL curve coincides with the MRPL curve. VMPL = MRPL curve is the firm's demand curve for labour.

This curve slopes downward because of diminishing marginal returns.

In Fig. 6.11, VMPL = MRPL = DL represents the firm's demand curve for labour.

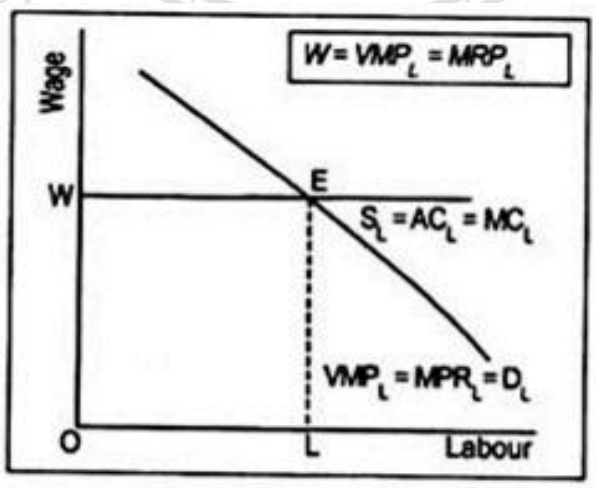


Fig. 6.11: MP Theory of Wage Determination

In Fig. 6.11, E is the equilibrium point since at this point labour demand equals labour supply. The equilibrium wage rate thus determined is OW. Corresponding to this wage rate, equilibrium level of employment is OL.

For OL amount of labour, VMPL = MRPL is LE, which equals wage rate OW. At this going wage rate (i.e., OW) the employer will be maximizing profit by employing OL units of labour. However, less (more) labour will be employed if market wage rate rises above (falls below) OW.

Limitations of Marginal Productivity Theory of Wage:

This neo-classical theory of wage determination is subject to a large number of criticisms. Most of the criticisms of this theory are directed against the assumptions. Most of the assumptions are unrealistic.

The Main Criticisms are:

i. In the real world, perfect competition does not exist—both in the product market and in the labour market. Imperfect competition is found in all the markets. This theory, therefore, has limited applicability in the real world. If it is applied to the imperfectly competitive market, the workers will be subject to exploitation.

ii. Labour can never be homogeneous— some may be skilled and some may be unskilled. Wage rate of a worker is greatly influenced by the quality of labour. A higher wage rate is enjoyed by the skilled labour compared to the unskilled labour. This simple logic has been totally ignored by the authors of this theory.

iii. Perfect mobility of labour is another unrealistic assumption. Mobility of labour may be restricted due to socio--political reasons.

iv. The marginal productivity theory of wage ignores the supply side of labour and concentrates only on the demand for labour. It is said that labour is demanded because labour is productive. But why labour is supplied cannot be answered in terms of this theory.

This is because of the fact that, at a given wage rate, any amount of labour is supplied. But we know that higher the wage rate, higher is the supply of labour. This positive wage-labour full employment of resources is another unrealistic assumption.

v. This theory, in fact, is not a wage theory but a theory of employment. Wage rate is predetermined. At the given wage rate OW, how many units of labour are supplied can be known from this theory. In this sense, it is a theory of employment and not a theory of wages.

vi. Finally, this theory ignores the usefulness of trade union in wage determination. Trade union, through its collective bargaining power, also influences wage rate in favour of the members of the organization.

In view of all these criticisms, the marginal productivity theory of wages has become useless.

17. Distinguish between Gross Interest and Net interest. Explain the Liquidity Preference Theory of Interest.

Gross Interest and Net Interest

These terms gross interest and net interest are often used interchangeably, but they represent different concepts in finance. The main dissimilarities or difference between gross interest and net interest can be described as follows:

Definition of Gross Interest

Gross interest refers to the total amount of interest earned or paid on an investment or loan before any deductions for taxes, fees, or other costs. It represents the raw interest amount that a lender or investor would expect to receive without considering any external factors. For example, if you invest $10,000 at an annual interest rate of 5%, the gross interest earned after one year would be:

Gross Interest= Principal × Interest Rate × Time

Gross Interest=10,000 × 0.05 × 1 = 500

In this case, the gross interest is $500.

Definition of Net Interest

On the other hand, net interest is the amount of interest that remains after all applicable deductions have been made. This includes taxes, fees, and any other charges associated with the

investment or loan. Continuing with the previous example, if one is subject to a 20% tax rate on your gross interest earnings, your net interest would be calculated as follows:

Net Interest=Gross Interest−Taxes

Net Interest=500−(500×0.20) =400

Thus, the net interest after taxes would be $400.

Key Differences Between Gross and Net Interest

1. Calculation:

- **Gross Interest:** Calculated as the total interest before any deductions.
- **Net Interest**: Calculated by subtracting taxes and fees from gross interest.

2. Impact of Taxes and Fees:

- **Gross Interest**: Does not account for any taxes or fees; it represents the full amount before deductions.
- **Net Interest**: Reflects actual earnings after accounting for taxes and fees, providing a more accurate picture of income.

3. Financial Decision-Making:

- **Gross Interest**: Useful for understanding potential earnings before deductions; often used in promotional materials for financial products.
- **Net Interest**: More relevant for budgeting and financial planning since it indicates how much money will actually be received.

4. Variation Over Time:

- **Gross Interest**: Can fluctuate based on changes in market conditions, such as shifts in interest rates.
- **Net Interest**: Generally, remains more stable unless there are changes in tax laws or fee structures.

5. Practical Application:

- **Gross Interest**: Commonly used in discussions about savings accounts, bonds, and fixed deposits to showcase potential earnings.
- **Net Interest**: Important for investors to consider when evaluating returns on investments that are subject to taxation.

In summary, while gross interest provides a broad view of potential earnings from investments or loans before any deductions are made, net interest offers a more realistic perspective by accounting for taxes and fees. For individuals looking to manage their finances effectively, understanding these differences is vital for making sound investment choices and planning for future financial goals.

Liquidity preference theory of interest

Keynes liquidity preference Theory of Interest Rate

Keynes defines the rate of interest as the reward for parting with liquidity for a specified period of time. According to him, the rate of interest is determined by the demand for and supply of money.

Demand for money: Liquidity preference means the desire of the public to hold cash. According to Keynes, there are three motives behind the desire of the public to hold liquid cash:

(1) the transaction Motive,
(2) the precautionary motive, and
(3) the speculative motive.

- ***Transactions Motive****:* The transactions motive relates to the demand for money or the need of cash for the current transactions of individual and business exchanges. Individuals hold cash in order to bridge the gap between the receipt of income and its expenditure. This is called the income motive. The businessmen also need to hold ready cash in order to meet their current needs like payments for raw materials, transport, wages etc. This is called the business motive.
- ***Precautionary motive:*** Precautionary motive for holding money refers to the desire to hold cash balances for unforeseen contingencies. Individuals hold some cash to provide for illness, accidents, unemployment and other unforeseen contingencies. Similarly, businessmen keep cash in reserve to tide over unfavourable conditions or to gain from unexpected deals.

Keynes holds that the transaction and precautionary motives are relatively interest inelastic, but are highly income elastic. The amount of money held under these two motives (M1) is a function (L1) of the level of income (Y) and is expressed as M1 = L1 (Y)

- ***Speculative Motive****:* The speculative motive relates to the desire to hold one's resources in liquid form to take advantage of future changes in the rate of interest or bond prices. Bond prices and the rate of interest are inversely related to each other. If bond prices are expected to rise, i.e., the rate of interest is expected to fall, people will buy bonds to sell when the price later actually rises. If, however, bond prices are expected to fall, i.e., the rate of interest is expected to rise, people will sell bonds to avoid losses.

According to Keynes, the higher the rate of interest, the lower the speculative demand for money, and lower the rate of interest, the higher the speculative demand for money. Algebraically, Keynes expressed the speculative demand for money as

$$M2 = L2 (r)$$

Where, L2 is the speculative demand for money, and R is the rate of interest.

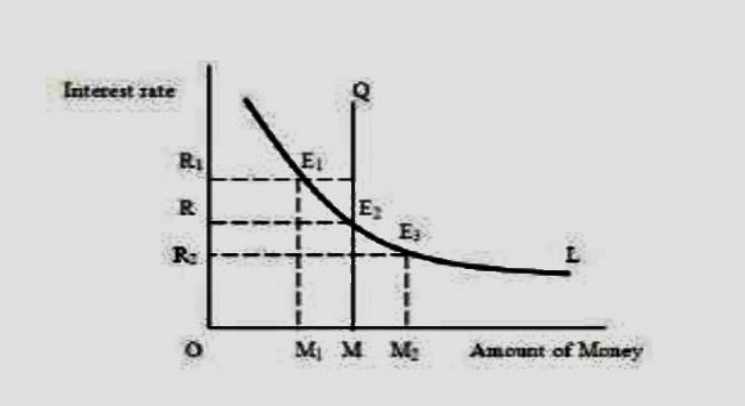
Geometrically, it is a smooth curve which slopes downward from left to right.

Now, if the total liquid money is denoted by M, the transactions plus precautionary motives by M1 and the speculative motive by M2, then

M = M1 + M2. Since M1 = L1 (Y) and M2 = L2 (r), the total liquidity preference function is expressed as M = L (Y, r).

Supply of Money: The supply of money refers to the total quantity of money in the country. Though the supply of money is a function of the rate of interest to a certain degree, yet it is considered to be fixed by the monetary authorities. Hence the supply curve of money is taken as perfectly inelastic represented by a vertical straight line.

Determination of the Rate of Interest: Like the price of any product, the rate of interest is determined at the level where the demand for money equals the supply of money. In the following figure, the vertical line QM represents the supply of money and L the total demand for money curve. Both the curve intersects at E2 where the equilibrium rate of interest OR is established.



If there is any deviation from this equilibrium position an adjustment will take place through the rate of interest, and equilibrium E2 will be re-established.

At the point E1 the supply of money OM is greater than the demand for money OM1. Consequently, the rate of interest will start declining from OR1 till the equilibrium rate of interest OR is reached. Similarly, at OR2 level of interest rate, the demand for money OM2 is greater than the supply of money OM. As a result, the rate of interest OR2 will start rising till it reaches the equilibrium rate OR.

It may be noted that, if the supply of money is increased by the monetary authorities, but the liquidity preference curve L remains the same, the rate of interest will fall. If the demand for money increases and the liquidity preference curve sifts upward, given the supply of money, the rate of interest will rise.

Criticisms:

Keynes theory of interest has been criticized on the following grounds:

6. It has been pointed out that the rate of interest is not purely a monetary phenomenon. Real forces like productivity of capital and thriftiness or saving by the people also play an important role in the determination of the rate of interest.
7. Liquidity preference is not the only factor governing the rate of interest. There are several other factors which influence the rate of interest by affecting the demand for and supply of investible funds.
8. The liquidity preference theory does not explain the existence of different rates of interest prevailing in the market at the same time.

9. Keynes ignores saving or waiting as a means or source of investible fund. To part with liquidity without there being any saving is meaningless.
10. The Keynesian theory only explains interest in the short-run. It gives no clue to the rates of interest in the long run.
11. Keynes theory of interest, like the classical and loanable funds theories, is indeterminate. We cannot know how much money will be available for the speculative demand for money unless we know how much the transaction demand for money is.

18. Differentiate between economic profit and accounting profit. Give arguments in favour of and against profit maximization objective of a business firm.

Differentiating Between Economic Profit and Accounting Profit

Accounting Profit is defined as the net income a company reports on its income statement. It is calculated by subtracting explicit costs from total revenue. Explicit costs include direct expenses such as wages, rent, and materials. For example, if a company generates $1 million in revenue and incurs $800,000 in explicit costs, its accounting profit would be $200,000. This figure is crucial for stakeholders like investors and tax authorities since it reflects the company's financial performance over a specific period.

In contrast, Economic Profit takes a broader perspective by considering both explicit and implicit costs. Implicit costs represent the opportunity costs of utilizing resources in one way rather than another. For instance, if the owner of a business could earn $50,000 annually working elsewhere but chooses to run their own business instead, this amount would be considered an implicit cost. The formula for economic profit is:

$$\text{Economic Profit} = \text{Total Revenue} - (\text{Explicit Costs} + \text{Implicit Costs})$$

Using the previous example, if the same company has $1 million in revenue, $800,000 in explicit costs, and an implicit cost of $50,000 (the owner's forgone salary), the economic profit would be:

$$\text{Economic Profit} = 1{,}000{,}000 - (800{,}000 + 50{,}000) = 150{,}000$$

This illustrates that while the accounting profit is $200,000, the economic profit is only $150,000 when considering opportunity costs.

Key Differences

1. **Calculation Basis:** Accounting profit focuses solely on explicit costs deducted from total revenue. In contrast, economic profit accounts for both explicit and implicit costs.
2. **Financial Reporting vs. Decision-Making**: Accounting profit is essential for financial reporting and compliance with accounting standards. Economic profit is more relevant for internal decision-making as it reflects the true profitability of a business when considering alternative uses of resources.
3. **Stakeholder Relevance:** Accounting profit is crucial for external stakeholders such as investors and tax authorities who assess financial health based on reported earnings. Economic profit provides insights for management regarding resource allocation and long-term sustainability.
4. **Focus on Time Frame**: Accounting profit provides a snapshot of financial performance over a specific period (usually quarterly or annually). Economic profit offers insights into long-term viability by considering opportunity costs associated with resource use.

Arguments in Favour of Profit Maximization Objective

Profit maximization has traditionally been viewed as the primary objective of firms. Here are several arguments supporting this view:

1. **Survival in Competitive Markets**: In competitive environments, firms that maximize profits are more likely to survive. High profits enable companies to reinvest in operations, innovate, and maintain market share.
2. **Resource Allocation**: Profit maximization encourages efficient resource allocation. Firms that focus on maximizing profits will seek to minimize costs while maximizing output, leading to optimal use of resources.
3. **Performance Measurement**: Profit serves as a clear metric for evaluating business performance. It allows stakeholders to assess how well a firm is doing compared to competitors or industry standards.

4. **Incentive for Innovation**: Higher profits provide firms with the capital needed to invest in research and development, leading to innovation and improved products or services over time.
5. **Shareholder Value:** For publicly traded companies, profit maximization aligns with shareholder interests. Higher profits often lead to increased dividends and stock prices, benefiting investors.
6. **Job Creation:** As firms grow through profit maximization, they may expand operations, leading to job creation and economic growth.

Arguments Against Profit Maximization Objective

Despite its advantages, the profit maximization objective has faced criticism on several fronts:

1. **Short-Term Focus**: Emphasizing profit maximization can lead firms to prioritize short-term gains over long-term sustainability. This may result in underinvestment in critical areas like employee development or environmental responsibility.
2. **Ethical Concerns**: A relentless focus on profits can lead businesses to engage in unethical practices such as exploiting workers, misleading customers, or harming the environment in pursuit of higher earnings.
3. **Stakeholder Neglect**: By focusing solely on profit maximization, firms may overlook the interests of other stakeholders, including employees, customers, suppliers, and the community. This can lead to dissatisfaction among these groups and damage the firm's reputation.
4. **Market Distortion**: In some cases, aggressive profit-seeking behaviour can distort markets through monopolistic practices or price-fixing arrangements that harm consumers.
5. **Uncertain Outcomes**: The assumption that all firms can accurately predict their maximum profits is flawed; many external factors can influence profitability unpredictably.
6. **Complexity of Modern Business**: The contemporary business environment often requires balancing multiple objectives beyond profit maximization—such as social responsibility, sustainability, and employee well-being—which are increasingly important to consumers and investors alike.

In conclusion, while accounting profit provides a snapshot of a company's financial performance based on explicit costs, economic profit offers a more comprehensive view by incorporating opportunity costs into the analysis. Understanding these distinctions is vital for stakeholders making informed decisions about investments or business strategies.

Moreover, while profit maximization remains a significant objective for many firms due to its various advantages—such as survival in competitive markets and resource efficiency—it is essential to recognize its limitations. A balanced approach that considers ethical implications and stakeholder interests may lead to more sustainable business practices in today's complex economic landscape.

19. Shorts notes -

I. Features of capitalist economy: -

Capitalism or capitalist economy is referred to as the economic system where the factors of production such as capital goods, labour, natural resources, and entrepreneurship are controlled and regulated by private businesses. In a capitalist economy, the production of all the goods and services is dependent on the demand and supply in the market that is also known as a market economy. It is different from the central planning system that is also known as a command economy or a planned economy. The main characteristic of a capitalist economy is the motive of earning profit. The capitalist economy is also characterized by the presence of free markets and lack of participation by the government in regulating the business. The origin of capitalism can be traced back to 18th century England that was undergoing the industrial revolution at that time. As there is no government intervention in this type of economy, it is also known as a free market economy.

Important features of capitalism or capitalist economy.

- **Private property**: This is one of the most important characteristics of capitalism where private properties like factories, machines, and equipment can be owned by private individuals or companies.

- **Freedom of enterprise**: Under this system, every individual has the right to make their own economic decisions without any interference. This is applicable to both consumers and producers.
- **Profit motive**: The motive of earning profit is one of the most important drivers of a capitalist economy. In this system, all the companies are looking to produce and sell their products to consumers to earn maximum profit.
- **Price mechanism**: Under this system, the demand and supply in the market will determine the production level and correspondingly the price set for the products without any kind of involvement from the government.
- **Consumer sovereignty**: In this system, the market is controlled by the demands of the consumer. It regulates the level of production undertaken by the companies, and the consumer is free to decide which products to purchase.
- **Free trade**: In this system, the low tariff barriers exist that promote international trade.
- **Government interference**: In a capitalist economy, there is no government interference in the daily activities of the business. The customers and producers are free to make their own decisions regarding any product or service.
- **Flexibility in labour markets**: In capitalism, there is a flexibility in hiring and firing of the workforce.
- **Freedom of ownership:** In this system, an individual can accumulate any amount of property and use it according to his will. After his death, the same property is passed on to the successors by the right of inheritance.

II. Change in quantity demanded and change in demand :-

A **change in quantity demanded** occurs when there is a movement along the demand curve due to a change in the price of the good or service. It is a direct response to the law of demand, which states that, ceteris paribus (all else being equal), the quantity demanded of a good inversely varies with its price.

a. **Nature of the Change:** If the price decreases, consumers tend to buy more of the product because it becomes more affordable, leading to an increase in quantity demanded. Conversely, if the price increases, consumers reduce their purchases because the good becomes more expensive, leading to a decrease in quantity demanded.

b. **Movement Along the Demand Curve**: The demand curve shows the relationship between price and quantity demanded. A change in price causes a movement along the curve—not a shift.

   For example: At a higher price, the point of demand moves up the curve (to the left).

   At a lower price, the point moves down the curve (to the right).

c. **Key Assumption (Ceteris Paribus)**: This concept holds true only if all other factors affecting demand (such as income, tastes, preferences, or prices of related goods) remain constant. If these factors change, it leads to a change in demand rather than a change in quantity demanded.

d. **Practical Examples**: A movie ticket price drops from ₹300 to ₹200, and more people decide to watch the movie. This reflects an increase in quantity demanded.

   If the price of apples rises from ₹100/kg to ₹150/kg, consumers might buy fewer apples, showing a decrease in quantity demanded.

Difference from Change in Demand:

Change in Quantity Demanded: Caused by a change in the product's own price; it moves along the same demand curve.

Change in Demand: Caused by changes in external factors (e.g., income, preferences); it shifts the entire demand curve.

Change in Demand refers to a shift in the entire demand curve caused by factors other than the price of the good itself. It indicates that consumers are now willing to purchase different quantities at every price level.

Main Characteristics:

a) Cause: A change in demand occurs due to factors other than the price of the good, such as:

- Changes in consumer income.
- Changes in tastes and preferences.
- Changes in the price of related goods (substitutes or complements).
- Changes in population or demographics.

Expectations about future prices or income.

b) **Shift in the Demand Curve**: Rightward Shift (Increase in Demand): Consumers are willing to buy more at every price level.

Example: If people's income rises, they may buy more of a product like smartphones.

Leftward Shift (Decrease in Demand): Consumers are willing to buy less at every price level.

Example: If a product becomes outdated, such as traditional cameras, demand decreases.

c) **No Change in Price:** The change in demand occurs even if the product's price remains constant.

d) **Graphical Representation**: The demand curve shifts to the right for an increase in demand.

It shifts to the left for a decrease in demand.

The price remains on the Y-axis, and quantity remains on the X-axis.

Examples:

• **Income Effect**: If consumer incomes increase, the demand for luxury items like cars increases (rightward shift).

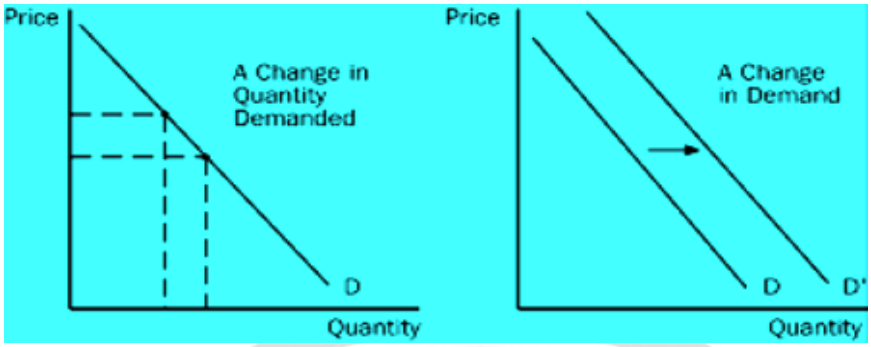
If incomes fall, the demand for these items decreases (leftward shift

- **Substitute Goods**: If the price of tea increases, the demand for coffee (a substitute) may increase (rightward shift). Conversely, if the price of tea decreases, coffee demand might decrease (leftward shift).
- **Complementary Goods**: If the price of petrol rises, the demand for cars (a complement) may decrease (leftward shift).
- **Consumer Preferences**: A trend or preference for healthier diets may increase demand for organic foods.

Difference from Change in Quantity Demanded:

Change in Quantity Demanded: Caused by price changes; it leads to movement along the same demand curve.

Change in Demand: Caused by external factors; it shifts the entire demand curve.



III. Economies of scale: -

Economies of scale refer to the cost advantage experienced by a firm when it increases its level of output. The advantage arises due to the inverse relationship between the per-unit fixed cost and the quantity produced. The greater the quantity of output produced, the lower the per-unit fixed cost.

Economies of scale also result in a fall in average variable costs (average non-fixed costs) with an increase in output. This is brought about by operational efficiencies and synergies as a result of an increase in the scale of production.

Economies of scale can be realized by a firm at any stage of the production process. In this case, production refers to the economic concept of production and involves all activities related to the commodity, not involving the final buyer.

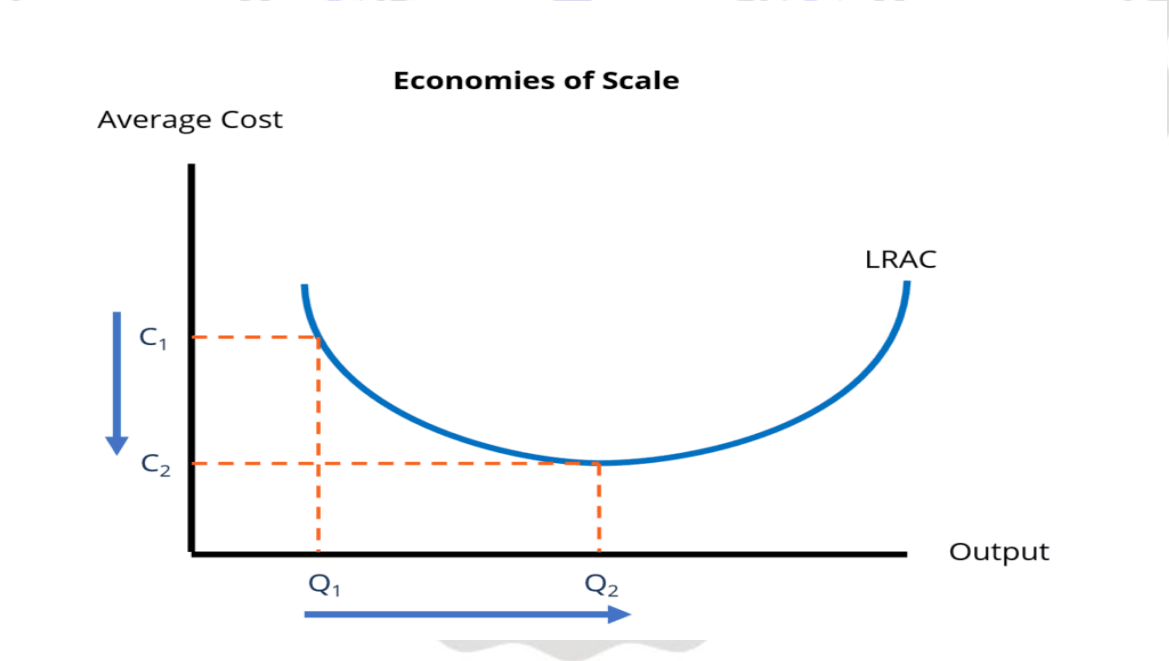
Thus, a business can decide to implement economies of scale in its marketing division by hiring a large number of marketing professionals. A business can also adopt the same in its input sourcing division by moving from human labour to machine labour.

Highlights:

- Economies of scale happen when an increase in output quantity reduces the per unit total cost of production.
- Economies of scale occur from operational efficiencies that improve with increased scale of production.
- Economies of scale can occur from various sources, including purchasing in bulk, improvement in management quality, and improvements or utilization of technologies that increase efficiency.

Effects of Economies of Scale on Production Costs

- It reduces the per-unit fixed cost. As a result of increased production, the fixed cost gets spread over more output than before.
- It reduces per-unit variable costs. This occurs as the expanded scale of production increases the efficiency of the production process.



The graph above plots the long-run average costs (LRAC) faced by a firm against its level of output. When the firm expands its output from Q1 to Q2, its average cost falls from C1 to C2. Thus, the firm can be said to experience economies of scale up to output level Q2.

In economics, a key result that emerges from the analysis of the production process is that a profit-maximizing firm always produces that level of output which results in the lowest average cost per unit of output.

Types of Economies of Scale

1. **Internal Economies of Scale:** This refers to economies that are unique to a firm. For instance, a firm may hold a patent over a mass production machine, which allows it to lower its average cost of production more than other firms in the industry.
2. **External Economies of Scale:** These refer to economies of scale enjoyed by an entire industry. For instance, suppose the government wants to increase steel production. In order to do so, the government announces that all steel producers who employ more than 10,000 workers will be given a 20% tax break.

Thus, firms employing less than 10,000 workers can potentially lower their average cost of production by employing more workers. This is an example of an external economy of scale – one that affects an entire industry or sector of the economy.

Sources of Economies of Scale

a. Purchasing: Firms might be able to lower average costs by buying the inputs required for the production process in bulk or from special wholesalers. By negotiating with suppliers for volume discounts, the purchasing firm takes advantage of economies of scale.

b. Managerial: Firms might be able to lower average costs by improving the management structure within the firm. The firm might hire better skilled or more experienced managers.

c. Technological: A technological advancement might drastically change the production process. For instance, fracking completely changed the oil industry a few years ago. However, only large oil firms that could afford to invest in expensive fracking equipment could take advantage of the new technology.

IV. Gross Interest and Net Interest: -

Gross Interest:

1. **Definition:** Gross interest is the total interest earned or paid on an investment or loan before deducting any taxes or fees. It represents the raw, pre-tax interest amount.

2. **Calculation:** To calculate gross interest, you simply determine the interest rate applied to the principal amount without considering any deductions. For instance, if you have a savings account with an annual interest rate of 5% and you earn Rs.100 in interest, the $100 is the gross interest.
3. **Examples:** Gross interest is commonly used when discussing the interest earned on savings accounts, fixed deposits, and bonds. It gives investors a clear picture of how much their money is growing before considering external factors.
4. **Tax Implications**: Gross interest does not account for taxes. Depending on your jurisdiction and the type of income, you may be required to pay taxes on your interest earnings. It's essential to be aware of your tax obligations and report your interest income accurately.

Net Interest:

1. **Definition:** Net interest is the amount of interest earned or paid on an investment or loan after all applicable taxes and fees have been deducted. It reflects the actual earnings or expenses you receive or incur.
2. **Calculation:** To calculate net interest, subtract any taxes, fees, or expenses from the gross interest amount. For instance, if you earned $100 in gross interest on your savings account but had to pay $20 in taxes, your net interest would be $80.
3. **Examples:** Net interest is particularly important in investment scenarios where taxes and fees can significantly impact your returns. This includes interest from taxable bonds, dividend income, and even rental income from real estate.
4. **Tax Implications**: Net interest accounts for taxes and fees, making it a more accurate representation of your actual earnings. It's important to be aware of the tax laws in your area and factor them into your financial planning.

Differences:

- **Tax and Fees**: The primary distinction between gross interest and net interest is that gross interest does not consider taxes or fees, while net interest accounts for these deductions.
- **Realistic Earnings**: Net interest provides a more realistic view of your earnings or expenses, as it reflects what you actually receive or pay after accounting for external factors.

- **Use Cases**: Gross interest is often used for simplicity in discussions and promotional materials, while net interest is crucial for making accurate financial decisions, especially when dealing with taxable income or investments subject to fees.

In conclusion, understanding the difference between gross interest and net interest is vital for managing your finances effectively. While gross interest may seem more attractive on the surface, it's the net interest that truly matters in assessing the impact of taxes and fees on your financial outcomes. Always consider the net interest when making investment decisions or evaluating the performance of your financial assets to ensure you have a clear understanding of your actual financial position.

V. Price discrimination: -

Introduction

Price discrimination is a pricing strategy where a business charges different prices to different groups of clients for the same good or service. This strategy allows firms to capture more revenue and profits by charging clients who are willing to pay a higher price while also charging clients who are less inclined to pay a lower price. Price discrimination can be based on factors such as age, income, location, or the time of purchase. There are several types of price discrimination, including first-degree, second-degree, and third-degree price discrimination, as well as bundling. Every kind of price discrimination has its advantages and drawbacks, and businesses must carefully think about their pricing strategies to ensure they are practical and ethical. While price discrimination can be an effective pricing strategy, companies must ensure that their pricing rules are fair and do not discriminate against certain groups of clients.

Types of Price Discrimination/ Degree of Price Discrimination

Generally, there are three types of price discrimination. These three stages of price discrimination play a very vital role. So, these are degrees of price discrimination.

a) **First-degree price discrimination**: Under the first degree, the business charges what the buyer is willing to pay. Generally, it is like the firm charges different prices for other clients. This price is charged according to the willingness of the individual. This type of discrimination is also called price discrimination. First-degree price discrimination is most

efficient in the case of the seller. But sometimes, first-degree price discrimination is difficult to implement.

b) **Second-degree price discrimination**: Second-degree price discrimination is based on the buyer's purchase quantity. A heavy discount is applied when a client purchases goods and services in bulk. This type of discrimination is known as quantity discrimination.

c) **Third-degree price discrimination**: Under third-degree price discrimination, different prices are charged for other groups of people. Various groups are based on age, income, and geographic location. For example, when the business provides for a group of students or senior members. Third-degree price discrimination is the easiest to implement. It is also the most commonly used.

Objectives of Price Discrimination

The objectives of price discrimination have been discussed below.

- **Extra revenue using price discrimination**: As per the situation and the chance spotted by the firm, it can charge discriminating prices to the clients and earn extra income whenever possible.
- **Higher profit earning**: Using a discriminating pricing strategy will help the firm generate more profits as it can charge higher prices to a selected group of clients.
- **Use up spare capacity**: Using a discriminating pricing strategy does not always mean charging higher prices; sometimes, the firms charge less for a certain amount of goods to clear on the old stock kept idle.
- **Improved cash flow**: Using a discriminating pricing strategy helps the firms gain extra cash flow by charging inflated prices.

Characteristics of Pricing Strategies

The characteristics of pricing strategies can be better understood by referring to the points stated below.

- **Client perception of value**: In a discriminate pricing method, the firm charges according to the perceived value of the goods and services the firm provides.

- **Costs of running your business**: It helps the firm charge according to the cost of running a business and prevents loss generation.
- **Competitors in the market**: A firm can gain a competitive advantage by charging less for the goods and services provided by the firm. There can be situations where the firm has decided to match the price adopted by the competitors so that they don't lose on their respective clientele.
- **Target buyer personas**: This concept helps in pricing a good or service by a firm as per the buyer's reach and not pricing beyond the clients' affordability.
- **Growth potential**: Pricing strategies are a perfect source to be placed for enhancing a firm's growth potential.

VI. Giffen's paradox: -

Giffen's Paradox is a rare economic phenomenon that manifests itself as an increase in the price of cheap goods, which further increases the demand for those goods. For this reason, it is considered an anomaly, since in theory, in such a situation, demand should decrease and supply should increase. The occurrence of this phenomenon indicates the deteriorating state of a country's economy.

This is the case with basic, necessary for survival goods (also called Giffen goods) – such as bread. Poorer members of society in particular can't afford to give them up or find cheaper substitutes because they often don't exist.

Giffen goods

Giffen goods must meet several criteria. These are:

The amount spent on the purchase of this good should be more than half of the household budget expenditures. There are no substitutes or they are much more expensive than the basic good (even after a general price increase). They are usually of lower quality than other products. Giffen goods can be, for example, potatoes, bread, and rice.

Demand and supply in Giffen's paradox

Giffen's paradox is related to the income effect. It illustrates how changes in the prices of products affect the demand for those products. Higher prices for basic goods reduce the consumers' purchasing power, forcing them to limit their spending to basic goods.

While the income effect is more evident, the substitution effect is weaker. Because of the scarcity or lack of substitutes for the Giffen good, the demand for it is even greater.

Giffen's paradox – examples

Below are some examples from history where different countries had to face the effects of the Giffen paradox.

Famine in Ireland: The Giffen paradox was first observed and described in the 19th century during the Irish famine. Its cause was the appearance of protozoa, which led to huge losses in agriculture and the death of many people due to infection or lack of food. This was the first time that a trend defying the previous laws of economics was noticed. One of the consequences of this event was a sharp increase in the price of bread, but this did not reduce spending on this particular commodity. People gave up other foods to be able to afford expensive flour products.

Tobacco products: It can be assumed that Giffen's paradox occurs in the case of tobacco products. Despite a significant price increase, smokers are unlikely to stop buying cigarettes due to a lack of other alternatives. Giving up cigarettes involves a struggle with addiction – physical and psychological dependence on nicotine, which takes time and effort

VII. **Collective bargaining: -**

Collective bargaining is the process in which working people, through their unions, negotiate contracts with their employers to determine their terms of employment, including pay, benefits, hours, leave, job health and safety policies, ways to balance work and family, and more. Collective bargaining is a way to solve workplace problems. It is also the best means for raising wages in America. Indeed, through collective bargaining, working people in unions have higher wages, better benefits and safer workplaces.

In the United States, some three-quarters of private-sector workers and two-thirds of public employees have the right to collective bargaining. This right came to U.S. workers through a series of laws. The Railway Labor Act granted collective bargaining to railroad workers in 1926

and now covers many transportation workers, such as those in airlines. In 1935, the National Labor Relations Act clarified the bargaining rights of most other private-sector workers and established collective bargaining as the "policy of the United States." The right to collective bargaining also is recognized by international human rights conventions.

The freedom to form and join a union is core to the U.N. Universal Declaration on Human Rights and is an "enabling" right—a fundamental right that ensures the ability to protect other rights.

Every year, millions of America's workers negotiate or renegotiate their bargained contracts. However, some employers seek to undercut existing bargaining relationships and roll back many hard-won contract terms and conditions. Unions continue to fight for the intrinsic rights of working people and restore the balance of economic power in our country through collective bargaining agreements.

VIII. Market equilibrium: -

Market equilibrium is reached when the volume of goods produced by sellers and the amount of goods that buyers want to purchase equals zero. When the demand and supply are equal, the equilibrium price can be found. At what price the amount provided and wanted are equal, we have an equilibrium price.

Meaning: Market equilibrium refers to a stable state in the market where the quantity demanded by consumers equals the quantity supplied by producers, resulting in no shortages or surpluses. In this state, the market is balanced, and the prices of goods or services tend to remain relatively stable over time.

Types: In the realm of economics, market equilibrium can manifest in various ways depending on the dynamics of supply and demand. Here are the main types of market equilibrium, explained in simple language:

a) **Static Equilibrium**: This type of equilibrium occurs when the quantity demanded and the quantity supplied remain constant over a period. In a stable market, there are no changes in demand or supply factors, leading to a consistent and unchanging equilibrium state.

b) **Dynamic Equilibrium**: Dynamic equilibrium refers to a state where the quantity demanded and the quantity supplied fluctuate over time but do so in a balanced manner. The market may experience periodic changes in demand or supply, but these fluctuations are relatively regular, leading to a stable long-term equilibrium.

c) **Partial Equilibrium**: Partial equilibrium arises when the equilibrium in a specific market is analysed independently without considering its impact on related markets. In this approach, the focus is on the interaction between demand and supply for a particular good or service, neglecting external influences.

d) **General Equilibrium**: On the other hand, general equilibrium involves analysing the interactions among all markets in an economy simultaneously. This comprehensive approach considers the interdependencies between different sectors and how changes in one market can affect others.

e) **Short-Term Equilibrium**: Short-term equilibrium occurs when the quantity demanded and supplied balance in the market over a brief period. This state may reflect the immediate impact of certain events or temporary shifts in consumer preferences.

f) **Long-Term Equilibrium**: Long-term equilibrium is achieved when the market adapts to changes over an extended period, typically allowing enough time for adjustments in production levels and consumer behaviour. It represents a more sustainable balance between demand and supply.

IX. Factors affecting supply

Factors that affect supply include:

Production Costs: The supply of a product and the cost of production is adversely related to each other. For companies, if the cost of production increases, the supply of products would shrink so as to save resources. For example, due to the high wages rate of labour, poor natural conditions such as crop failure as well as the increase in raw materials price, taxes, transportation and cost of production is raised. In this case, managers of the company would either supply a smaller quantity of product to the market or stock the product till the market price is exceeded.

Technology: Shifts in the supply curve are usually the result of advances in technology that reduce the cost of production. Technology advances can improve production efficiency and therefore cut down the cost spent for production. Computers, televisions and photographic

equipment are good examples of the effects of technology on the supply curve. A huge computer that used to cost several thousand dollars can now be purchased for a few hundred dollars with such improvement in storage and processor. In this case, the supply for the computer in the present day would be much higher than that of the past.

Government policy: With the role to regulate and protect the industry, the Government has a great influence on the supply of a product. The lower the tax, the higher the supply of that product. On the other hand, if strict regulations are imposed and the excise duty is added, the product's supply would fall off.

Availability of materials: The type, quantity, and cost of raw materials can affect supply.

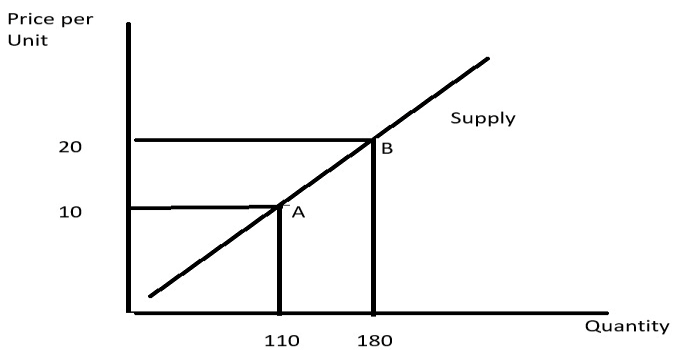
Supply chain: An adequate supply chain is important for a product's success, and can affect supply levels.

Periods of uncertainty: Companies may reduce production and focus on reducing inventory during uncertain times.

Production capacity: A company's ability to produce or manufacture products can affect supply levels.

Other factors that can affect supply include:

- Price of goods
- Price of related goods
- Production conditions
- Future expectations
- Input costs
- Number of suppliers
- Firm goals



The supply function, also known as the supply curve, is a graphical representation of the relationship between price and quantity supplied at a given time.

X. Limits of monopolist: -

1. **Potential competition:**

Only in rare cases is new entry absolutely barred. Patents, copyrights and government monopolies are possibly the only cases where new competitors cannot come. In other cases, possibility of competition exists and too high prices will tempt newcomers into the field. If dynamic entrepreneurs enter the monopolized industry, competition may be restored.

2. **Substitutes:**

In reality almost every commodity has some substitutes. The monopolist can maintain his position only so long as the substitutes of the monopolized commodity are readily available. But if the monopoly price is too high people will begin to use less satisfactory substitutes (e.g., kerosene oil or gas for electricity). The monopolist, therefore, charges less than the highest possible price.

3. **Public Opinion:**

In democratic countries public opinion is always an important factor. Very high prices may induce the public to take retaliatory action (e.g., boycott) or induce the government to control the monopoly by law or nationalize it. Monopolists now-a-days take steps to keep the public satisfied. The best way of doing so is to charge fair prices. Consumers' resistance may reduce price.

4. **Legislation:**

In the case of public utility services, like gas or electric supply, the government, by law, limits the prices which can be charged.

5. **Consumers' Surplus:**

The monopolist must consider the consumers' surplus obtained from the commodity. The monopolist cannot fix his price above the consumers' surplus.

6. **Countervailing Power:**

The monopolist buys raw materials, etc. from other producers. The monopolist pay-wages to their workers. It is found that the power of the monopolist is curtailed by the power of the suppliers of goods and of trade unions. This is called countervailing power.

7. Price elasticity of Demand:

The ultimate limit to the power of a monopolist is set by price elasticity of demand for the product of the monopolist. In this context A. P. Lerner has related to the degree of monopoly power. This point will be explained fully freely in the context of profit curves.

Example:

A monopolist has two markets and the demand schedules in them are as follows:

Market A		Market B	
Price (Rs.)	Quantity	Price (Rs.)	Quantity
50	400	60	600
40	600	50	800
30	900	40	1,100
20	1,000	30	1,400

He wants to sell 1,400 units. His TC = Rs. 30,000. What price will he set in the two markets and why?

Solution:

A discriminating monopolist reaches equilibrium and hence maximises profit when he equates the marginal revenue(s) in both the markets, i.e., $MR_1 = MR_2$. If this condition holds total revenue will be maximum and revenue maximisation subject to cost constraint implies profit maximisation. So, we may calculate total revenue from each market for different price-quantity combinations and then the corresponding MR.

This is done in the following table:

Market I				Market II			
P Rs.	Q_1	TR Rs.	MR Rs.	P Rs.	Q_2	TR Rs.	MR Rs.
50	400	20,000	20	60	600	36,000	20
40	600	24,000	10	50	800	40,000	13.3
30	900	27,000		40	1,100	44,000	
20	1,000	20,000	-70	30	1,400	42,000	-0.66

So, when the firm sells 600 units in market I, at a price of Rs. 40 per unit and 800 units in market II at a price of Rs. 50, MR1 – MR2 and total revenue is Rs. 24,000 + Rs. 40,000 = Rs. 64,000 which is maximum. No other combination of Q1 and Q2 will yield the same total revenue and hence raise profit further.

XI. Cross elasticity of demand

The cross elasticity of demand is an economic concept that measures the responsiveness in the quantity demanded of one good when the price for another good changes. It's also referred to as cross price elasticity of demand.

This measurement is calculated by taking the percentage change in the quantity demanded of one good and dividing it by the percentage change in the price of the other good.

While explaining cross-price elasticity, there are three categories of product relationships to examine.

1. First, there are products that are closely related to one another – sometimes known as substitute products. These products compete for the same customers in the market.
2. Second, there are products that are consumed together. The demand for one product directly affects the consumption of related products. These products are known as complementary products.
3. The final group belongs to products that are entirely unrelated to one another. These products do not affect the consumption of one another.

Cross Price Elasticity of Substitute Products

For substitute products, an increase in the price of a substitute product increases the demand for the competing product. This is often because consumers always try to maximize utility. The less they spend on something, the higher the perceived satisfaction.

Similarly, when the competing product price is reduced, the mirroring effect is depicted by an increase in demand for the substitute product. In either of these scenarios, the change will either drive a negative or a positive cross-price elasticity. For cross-price elasticity, where there is an increase in the price of the competing products, there will be a positive coefficient.

Practical Example:

Two competing airlines – A and B – are a perfect example of substitute products. If Airline A decides to increase their flights' round-trip ticket price by even a small margin, consumers will likely notice the difference. As a result, more people will opt for Airline B because it is cheaper.

Categories of Substitute Products

Substitute products can be categorized as either close or weak.

- **Close Substitutes:** A close substitute is realized when a minimal increase in price leads to a large demand increase of the substitute product.
- **Weak Substitutes:** For a weak substitute, a large increase in the price of product X will lead to only a small increase in demand for product Y

Cross-Price Elasticity of Complementary Products

Complementary products have the opposite effect. If the price of one product increases, the demand for the complementary product decreases. To consumers, the increased joint cost will force them to buy less.

Practical Example: An example of a complementary product is an eBook reader. If the price of an eBook reader drops, the consumption of eBooks and audiobooks will increase because more consumers can afford the reader.

Categories of Complementary Products: Complementary products can either be close or weak complements.

- **Close Complements**

In the case of a strong complement product, a minimal price decrease leads to a large increase in demand for the complement product.

- **Weak Complements**

For weak complementary products, a large price decrease leads to a small increase in demand for the complementing products.

Cross-Price Elasticity of Unrelated Products

Unrelated products do not affect one another. It means the cross-effect elasticity is zero, and a vertical line would represent the graph.

XII. Rent element in other factor incomes

Ricardo restricted his theory of rent to the income from land only. In his opinion, rent of land arises owing to the fixed supply of land and owing to differences in fertility or situation of the different plots of land. The superior lands get a surplus income over the cost of producing crops; and this differential gain or producer's surplus is the rent of land.

Marshall developed the Ricardian idea of rent by introducing the concept of quasi-rent. In his opinion, rent is not peculiar to land only; it may also arise in the short period in the income from machines and man-made appliances. The latter type of man-made capital goods may enjoy a surplus in the short period as their supplies, like the supply of land, remain more or less fixed in the short period; this surplus, however, disappears in the long run when the supply of these man-made appliances increases.

For this reason, Marshall describes the short-run net earnings of their man-made appliances as quasi-rent, as distance from rent proper which appears in the case of land only because of its limited supply even in the long run.

Modern writers like Mrs. Robinson and others have made a further extension of the concept of rent but in a different way. They have defined economic rent as the excess of actual earnings of a factor over its minimum supply price or transfer earnings. In this sense, rent arises not only in the

income of land but also in the remuneration of any other factors (such as labour, capital and entrepreneur) on account of inelastic supply of the factor.

1. Economic rent in the income from land:

From the standpoint of the economy as a whole, the supply of land is absolutely fixed or is perfectly inelastic at all prices, and so from this point of view land has no alternative earnings and its transfer earnings are zero. For this reason, from the standpoint of the economy as a whole, the entire earnings of land represent a surplus and so can be treated as rent. But, from the point of view of an individual farmer only the surplus labour cost represents economic rent.

2. Economic rent in wages:

Economic rent is found in wages when the supply of labour becomes inelastic or when the demand for labour increases in relation to its supply or when labour becomes highly specific in nature. Every labourer has a minimum supply prices and economic rent arises in wages when a labourer gets something excess over this minimum supply price.

Thus, a labourer is willing to supply his labour at wages of Rs. 20 per day; but owing to an increase in the demand for labour at wages of Rs. 20 per day; but owing to an increase in the demand for labour, he gets Rs. 25 per day. Here the sum of Rs. 5 represents economic rent in his daily wages of Rs. 25. Similarly, some labourers may get rent of ability in their earnings on account of their superior abilities.

Again, there is a large element of rent in the incomes of movie stars, painters, musicians, etc. as the supply of these people in the society is relatively inelastic simply because they possess rare natural talent. In the case of a blind singer, his entire earnings may constitute economic rent as normally his transfer or alternative earnings are zero. As a general rule it can be said that the more specific the labour, the greater the proportion of its earnings that consist of rent.

Table 1

Labourers	Actual Wage	Minimum Supply Price	Economic Rent
A	Rs. 20	Rs. 10	Rs. 10
B	Rs. 15	Rs. 10	Rs. 5
C	Rs. 12	Rs. 10	Rs. 2
D	Rs. 10	Rs. 10	Rs. Nil

Diagrammatic Illustration:

In Fig. 10 the OA-th labourer enjoys BT economic rent in his total earnings of AT, while the ON-the labourer has no economic rent in his total of economic rent for ON number of labourers is represented by the area RML.

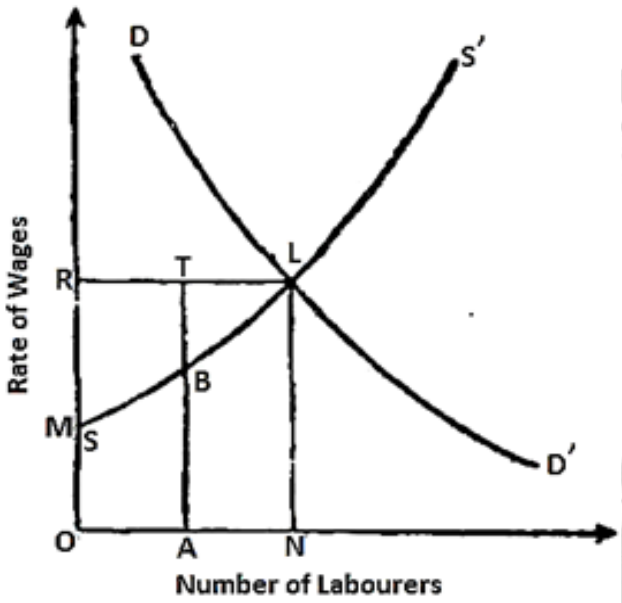


Fig. 10 : Economic Rent

3. Economic rent in interest:

Money-capital or loanable fund, like labour, also have a minimum supply price. If it gets some excess in its earnings due to a rise in its demand, the excess amount would represent economic rent in interest. In the short period the supply of some forms of loanable funds. Let us suppose that an investor is willing to lend his money-capital at the minimum supply prices of these funds may be inelastic and consequently their owners may get something excess over the minimum supply prices of these funds. Let us suppose that an investor is willing to lend his money-capital at the minimum supply price of 12% interest, but due to a rise in the demand for money capital, he gets 16% interest. In such a case 4% excess interest represents the rent element in interest or the investor's surplus earnings.

4. Economic rent in profits:

Economic rent is also found in the income of the entrepreneur. In the short period the supply of efficient and highly skilled entrepreneurs may be limited. Owing to this reason, these entrepreneurs having superior organizing abilities may earn more than normal profits. Such excess earnings over the normal profits represent rent in their incomes.

Thus, it is found that there can be an element of rent in the remuneration of all factors, i.e., in wages, interest and profits. In fact, the rent of land and the earnings of other factors in the short period, commonly described as quasi-rent, belong to the same broad group as all these arise due to the inelastic supply of the factor. The supply of land is, however permanently inelastic and for this reason the surplus element in the income of land is more or less permanent, but the supply of other factors is not so fixed in the long run; it is so only in the short period. For this reason, the surplus element or rent element found in other incomes generally disappears in the long run. Accordingly, Marshall describes the rent of land as the leading species of a large genus. Thus, he observes, “The rent of land is seen, not as a thing by itself, but as the leading species of a large genus.”